

The Chemours Company Washington Works 8480 DuPont Road PO Box 1217 Washington, WV 26181 304-863-4000 chemours.com

Received
April 7, 2021
WV DEP/Div of Air Quality

April 07, 2021

Submitted to DEPAirQualityPermitting@wv.gov

Ms. Laura M. Crowder, Director Division of Air Quality WV Department of Environmental Protection 601 57<sup>th</sup> Street, SE Charleston, WV 25304-2345

# COVER DOCUMENT FOR TITLE V PERMIT RENEWAL R30-107-00182 Title V Permit – Segment 11 of 14 Renewal Application

Dear Ms. Crowder:

Attached you will find the application documents and required index for the application for the renewal of the Title V Operating permit for the Research and Development [Segment 11 of 14] facilities located at the Chemours Washington Works Facility.

The attached renewal application has been completed using references to the existing documentation (Permits) and interpretive rules for terms and compliance methods rather than the relisting of each term and compliance method under each emission unit. Chemours will supply searchable PDF copies of current permits and applicable interpretive rules if needed to assist the permit writer in the assembly of the final permit document.

After careful review Chemours has concluded that there will not be a confidential version of the renewal application. Operations in R&D and the associated laboratories do not involve production processes in the same manner as an established process used for manufacturing a specific product. The generalized requirements found in 45 CSR 13A and 45 CSR 13B leave sufficient room for protection of process knowledge and lines of investigation on an individual activity basis.

If you have questions, or need clarification, the contact person for this renewal application is John J. Mentink who may be reach at (304) 863-4033 by telephone or text and at <a href="mailto:john.j.mentink@chemours.com">john.j.mentink@chemours.com</a> by email.

Very truly yours;

John J. Mentink

Environmental Sr. Principal Consultant

**Chemours Washington Works** 

**Enclosures** 



# WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

## DIVISION OF AIR QUALITY

601 57<sup>th</sup> Street SE

Charleston, WV 25304 Phone: (304) 926-0475

www.dep.wv.gov/daq

## INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

#### Section 1: General Information

300	ection 1. General Information			
1.	Name of Applicant (As registered with the WV Secretary of State's Office):	2. Facility Name or Location:		
3.	DAQ Plant ID No.:	4. Federal Employer ID No. (FEIN):		
5.	Permit Application Type:			
	_	perations commence? expiration date of the existing permit?		
6.	Type of Business Entity:	7. Is the Applicant the:		
	☐ Corporation ☐ Governmental Agency ☐ LLC ☐ Partnership ☐ Limited Partnership	☐ Owner ☐ Operator ☐ Both  If the Applicant is not both the owner and operator,		
8.	Number of onsite employees:	please provide the name and address of the other party.		
9.	Governmental Code:			
	☐ Privately owned and operated; 0 ☐☐ ☐ Federally owned and operated; 1 ☐☐ ☐ State government owned and operated; 2 ☐☐	County government owned and operated; 3 Municipality government owned and operated; 4 District government owned and operated; 5		
10	. Business Confidentiality Claims			
	Does this application include confidential information.  If yes, identify each segment of information on each justification for each segment claimed confidential, it	page that is submitted as confidential, and provide neluding the criteria under 45CSR§31-4.1, and in		
	accordance with the DAQ's "PRECAUTIONARY NO	OTICE-CLAIMS OF CONFIDENTIALITY" guidance.		

11. Mailing Address					
Street or P.O. Box:					
City:		State:		Zip: -	
Telephone Number: ( )	-	Fax Number: ( ) -		-	
12. Facility Location					
Street:	City:		Coun	County:	
UTM Easting: km	UTM Northin	g: k	m Zone:	<b>Zone:</b> ⊠ 17 or □ 18	
Portable Source?					
Is facility located within a nonattainment area?   Yes   No		If yes	, for what air pollutants?		
Is facility located within 50 miles of another state? ☐ Yes ☐ No		o If yes	, name the affected state(s).		
Is facility located within 100 km of a Class I Area¹? ☐ Yes ☐ No  If no, do emissions impact a Class I Area¹? ☐ Yes ☐ No			If yes	, name the area(s).	
Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.					

13. Contact Information			
Responsible Official:		Title:	
Street or P.O. Box:			
City:	State:	Zip: -	
Telephone Number: ( ) -	Fax Number: ( ) -		
E-mail address:			
<b>Environmental Contact:</b>		Title:	
Street or P.O. Box:			
City: State:		Zip: -	
Telephone Number: ( ) - Fax Number: ( ) -			
E-mail address:			
Application Preparer:		Title:	
Company:			
Street or P.O. Box:			
City: State:		Zip: -	
Telephone Number: ( ) - Fax Number: ( ) -			
E-mail address:			

14.	<b>Facility Description</b>		

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC

Provide a general	description (	of operations.
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- 15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.
- 16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**.

For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

## Section 2: Applicable Requirements

18. Applicable Requirements Summary			
Instructions: Mark all applicable requirements.			
□ SIP	☐ FIP		
☐ Minor source NSR (45CSR13)	☐ PSD (45CSR14)		
□ NESHAP (45CSR34)	☐ Nonattainment NSR (45CSR19)		
☐ Section 111 NSPS	Section 112(d) MACT standards		
☐ Section 112(g) Case-by-case MACT	☐ 112(r) RMP		
☐ Section 112(i) Early reduction of HAP	☐ Consumer/commercial prod. reqts., section 183(e)		
☐ Section 129 Standards/Reqts.	Stratospheric ozone (Title VI)		
☐ Tank vessel reqt., section 183(f)	☐ Emissions cap 45CSR§30-2.6.1		
☐ NAAQS, increments or visibility (temp. sources)	☐ 45CSR27 State enforceable only rule		
☐ 45CSR4 State enforceable only rule	☐ Acid Rain (Title IV, 45CSR33)		
☐ Emissions Trading and Banking (45CSR28)	☐ Compliance Assurance Monitoring (40CFR64)		
☐ CAIR NO <sub>x</sub> Annual Trading Program (45CSR39)	☐ CAIR NO <sub>x</sub> Ozone Season Trading Program (45CSR40)		
☐ CAIR SO <sub>2</sub> Trading Program (45CSR41)			
19. Non Applicability Determinations			
List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.			
Permit Shield			

19. Non Applicability Determinations (Continued) - Attach additional pages as necessary.

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.	
☐ Permit Shield	

19. Non Applicability Determinations (Continued) - Attach additional pages as necessary.

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.	
Permit Shield	

20. Facility-Wide Applicable Requirements	
cist all facility-wide applicable requirements. For each applicable requirement, include the underlying ule/regulation citation and/or construction permit with the condition number. (Note: Title V permit ondition numbers alone are not the underlying applicable requirements).	
Permit Shield	
For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)	
Are you in compliance with all facility-wide applicable requirements?   Yes   No	
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .	

20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.		
List all facility-wide applicable requirements. and/or permit with the condition number.	For each applicable requirement, include the rule citation	
Permit Shield		
Permit Shield  For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/ reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)		
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If no, complete the <b>Schedule of Compliance For</b>	rm as ATTACHMENT F.	

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If no, complete the Schedule of Compliance Form as ATTACHMENT F.		

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Are you in compliance with all facility-wide applicable requirements?   Yes No		
If no, complete the Schedule of Compliance Form as ATTACHMENT F.		

. Active Permits/Consent Orders		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit (if any)

Permit Number	Date of Issuance	Permit Condition Number

#### Section 3: Facility-Wide Emissions

Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	
Nitrogen Oxides (NO <sub>X</sub> )	
Lead (Pb)	
Particulate Matter (PM <sub>2.5</sub> ) <sup>1</sup>	
Particulate Matter (PM <sub>10</sub> ) <sup>1</sup>	
Total Particulate Matter (TSP)	
Sulfur Dioxide (SO <sub>2</sub> )	
Volatile Organic Compounds (VOC)	
Hazardous Air Pollutants <sup>2</sup>	Potential Emissions
Regulated Pollutants other than Criteria and HAP	Potential Emissions

 $<sup>^{1}</sup>PM_{2.5}$  and  $PM_{10}$  are components of TSP.

<sup>&</sup>lt;sup>2</sup>For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

#### Section 4: Insignificant Activities

24.	Insign	ificant Activities (Check all that apply)
	1.	Air compressors and pneumatically operated equipment, including hand tools.
	2.	Air contaminant detectors or recorders, combustion controllers or shutoffs.
	3.	Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
	4.	Bathroom/toilet vent emissions.
	5.	Batteries and battery charging stations, except at battery manufacturing plants.
	6.	Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
	7.	Blacksmith forges.
	8.	Boiler water treatment operations, not including cooling towers.
	9.	Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
	10.	CO <sub>2</sub> lasers, used only on metals and other materials which do not emit HAP in the process.
	11.	Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
	12.	Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
	13.	Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
	14.	Demineralized water tanks and demineralizer vents.
	15.	Drop hammers or hydraulic presses for forging or metalworking.
	16.	Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
	17.	Emergency (backup) electrical generators at residential locations.
	18.	Emergency road flares.
	19.	Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO <sub>x</sub> , SO <sub>2</sub> , VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units.
		Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:

24.	24. Insignificant Activities (Check all that apply)				
	20.	Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27.  Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:			
	21.	Environmental chambers not using hazardous air pollutant (HAP) gases.			
	22.	Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.			
	23.	Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.			
	24.	Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.			
	25.	Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.			
	26.	Fire suppression systems.			
	27.	Firefighting equipment and the equipment used to train firefighters.			
	28.	Flares used solely to indicate danger to the public.			
	29.	Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.			
	30.	Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.			
	31.	Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.			
	32.	Humidity chambers.			
	33.	Hydraulic and hydrostatic testing equipment.			
	34.	Indoor or outdoor kerosene heaters.			
	35.	Internal combustion engines used for landscaping purposes.			
	36.	Laser trimmers using dust collection to prevent fugitive emissions.			
	37.	Laundry activities, except for dry-cleaning and steam boilers.			
	38.	Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.			
	39.	Oxygen scavenging (de-aeration) of water.			
	40.	Ozone generators.			

24.	4. Insignificant Activities (Check all that apply)			
	41.	Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)		
	42.	Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.		
	43.	Process water filtration systems and demineralizers.		
	44.	Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.		
	45.	Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.		
	46.	Routing calibration and maintenance of laboratory equipment or other analytical instruments.		
	47.	Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.		
	48.	Shock chambers.		
	49.	Solar simulators.		
	50.	Space heaters operating by direct heat transfer.		
	51.	Steam cleaning operations.		
	52.	Steam leaks.		
	53.	Steam sterilizers.		
	54.	Steam vents and safety relief valves.		
	55.	Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.		
	56.	Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.		
	57.	Such other sources or activities as the Director may determine.		
	58.	Tobacco smoking rooms and areas.		
	59.	Vents from continuous emissions monitors and other analyzers.		

#### Section 5: Emission Units, Control Devices, and Emission Points

#### 25. Equipment Table

Fill out the **Title V Equipment Table** and provide it as **ATTACHMENT D**.

#### 26. Emission Units

For each emission unit listed in the **Title V Equipment Table**, fill out and provide an **Emission Unit Form** as **ATTACHMENT E**.

For each emission unit not in compliance with an applicable requirement, fill out a **Schedule of Compliance** Form as ATTACHMENT F.

#### 27. Control Devices

For each control device listed in the **Title V Equipment Table**, fill out and provide an **Air Pollution Control Device Form** as **ATTACHMENT G**.

For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the **Compliance Assurance Monitoring (CAM) Form(s)** for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as **ATTACHMENT H**.

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#### Section 6: Certification of Information

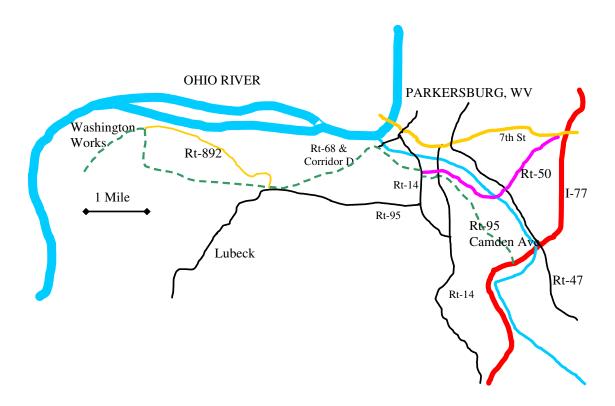
## 28. Certification of Truth, Accuracy and Completeness and Certification of Compliance This Certification must be signed by a responsible official. The original, signed in blue ink, must be Note: submitted with the application. Applications without an original signed certification will be considered as incomplete. a. Certification of Truth, Accuracy and Completeness I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment. b. Compliance Certification Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements. Responsible official (type or print) Title: Plant Manager Name: Nicole T. Newell Responsible official's signature: Signature Date:

Note: Please check all applicable attachments included with this permit application:			
V	ATTACHMENT A: Area Map		
V	ATTACHMENT B: Plot Plan(s)		
V	ATTACHMENT C: Process Flow Diagram(s)		
V	ATTACHMENT D: Equipment Table		
V	ATTACHMENT E: Emission Unit Form(s)		
	ATTACHMENT F: Schedule of Compliance Form(s)		
V	ATTACHMENT G: Air Pollution Control Device Form(s)		
V	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)		

All of the required forms and additional information can be found and downloaded from, the DEP website at <a href="https://www.gov/dag">www.gov/dag</a>, requested by phone (304) 926-0475, and/or obtained through the mail.

# **Attachment A - Map to Facility**

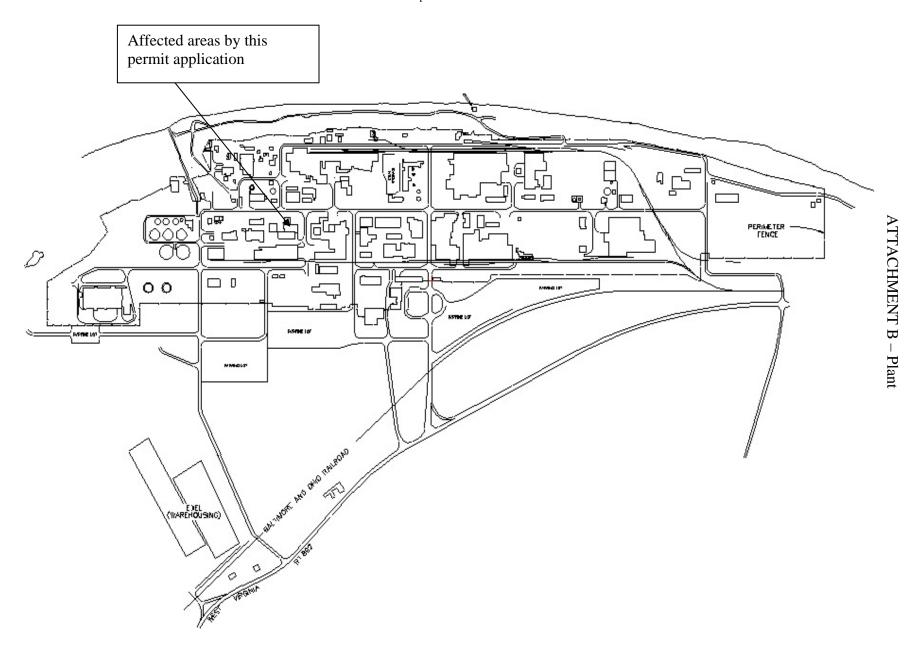
## Attachment A - Area Map



From Interstate 77, take exit for Rt-95/Camden Avenue. Proceed west until intersection with Rt-14 then turn right (north). After about 1/4 mile turn left onto Corridor D Bypass entrance. Follow the bypass to the exit just before the bridge. Turn left (south) onto DuPont Rd, Rt-892. Proceed approx. 1 mile to facility on right.

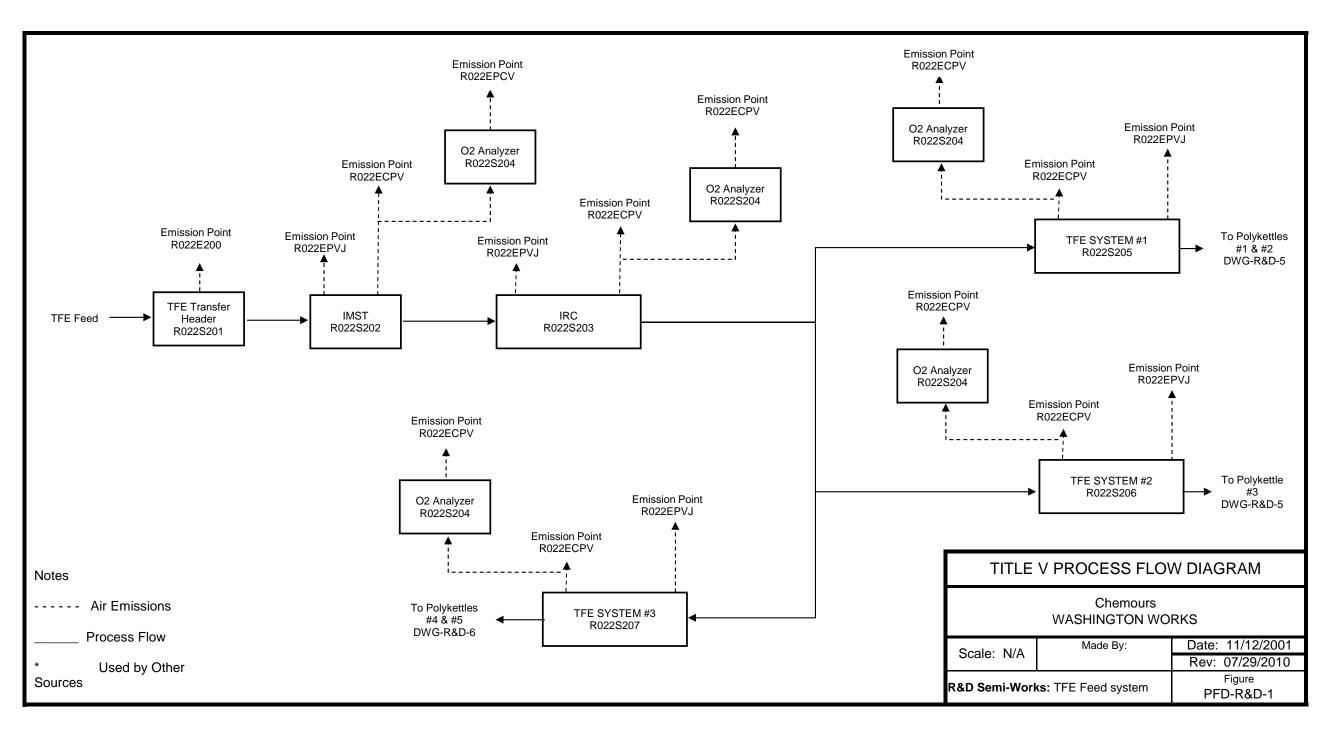
# Attachment B - Map of Facilities to Show Location of Affected Unit

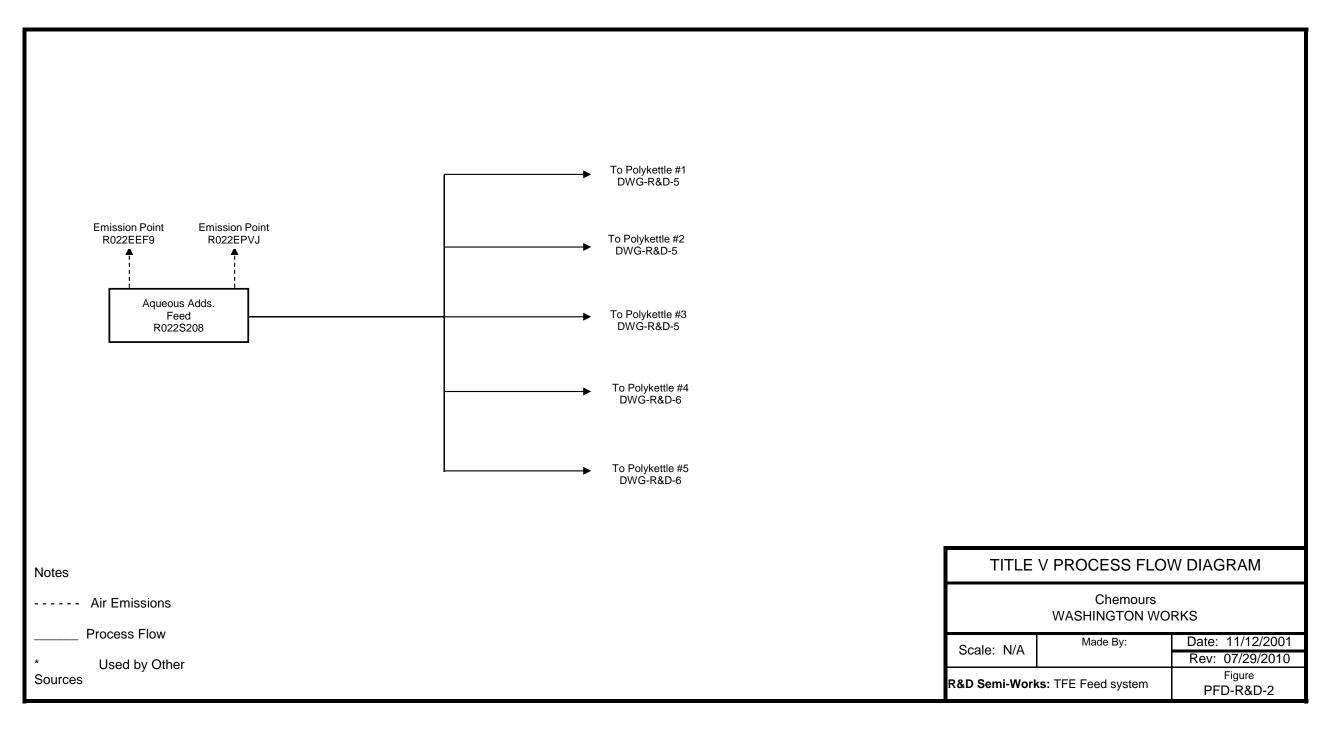
Plant Map

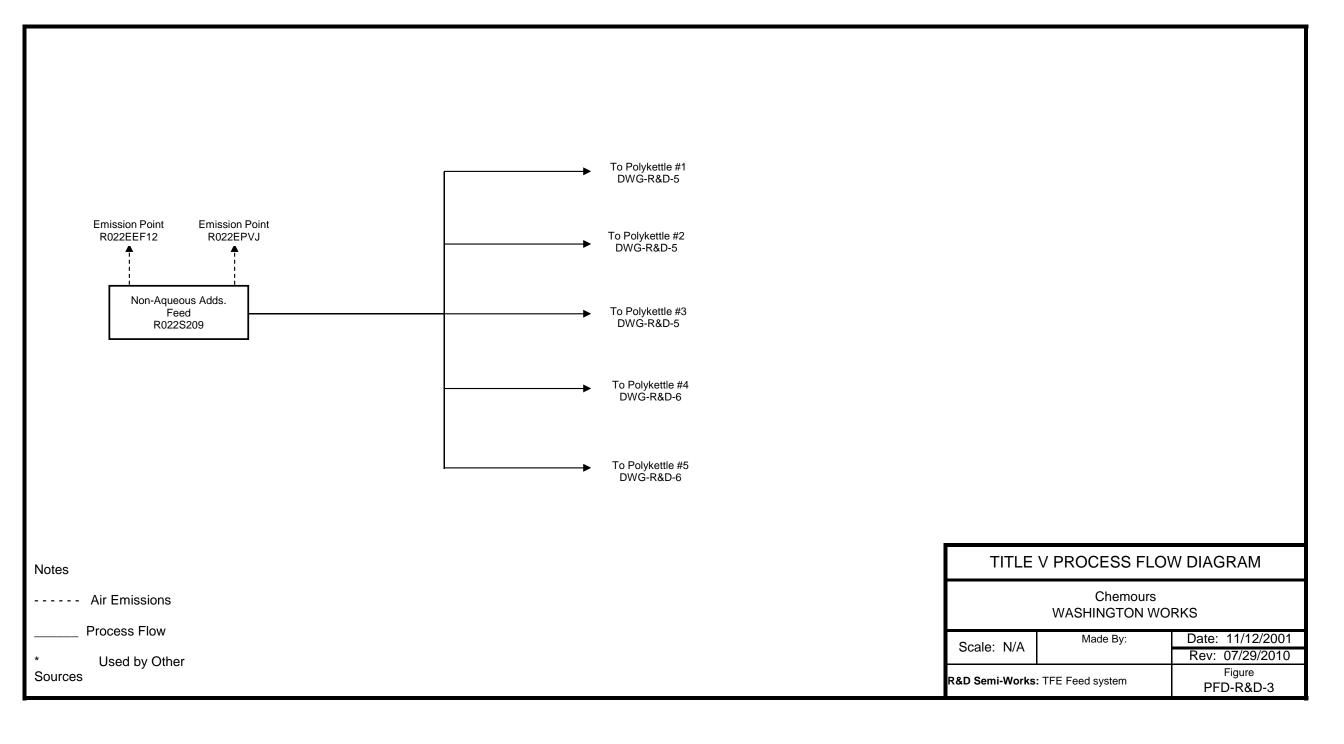


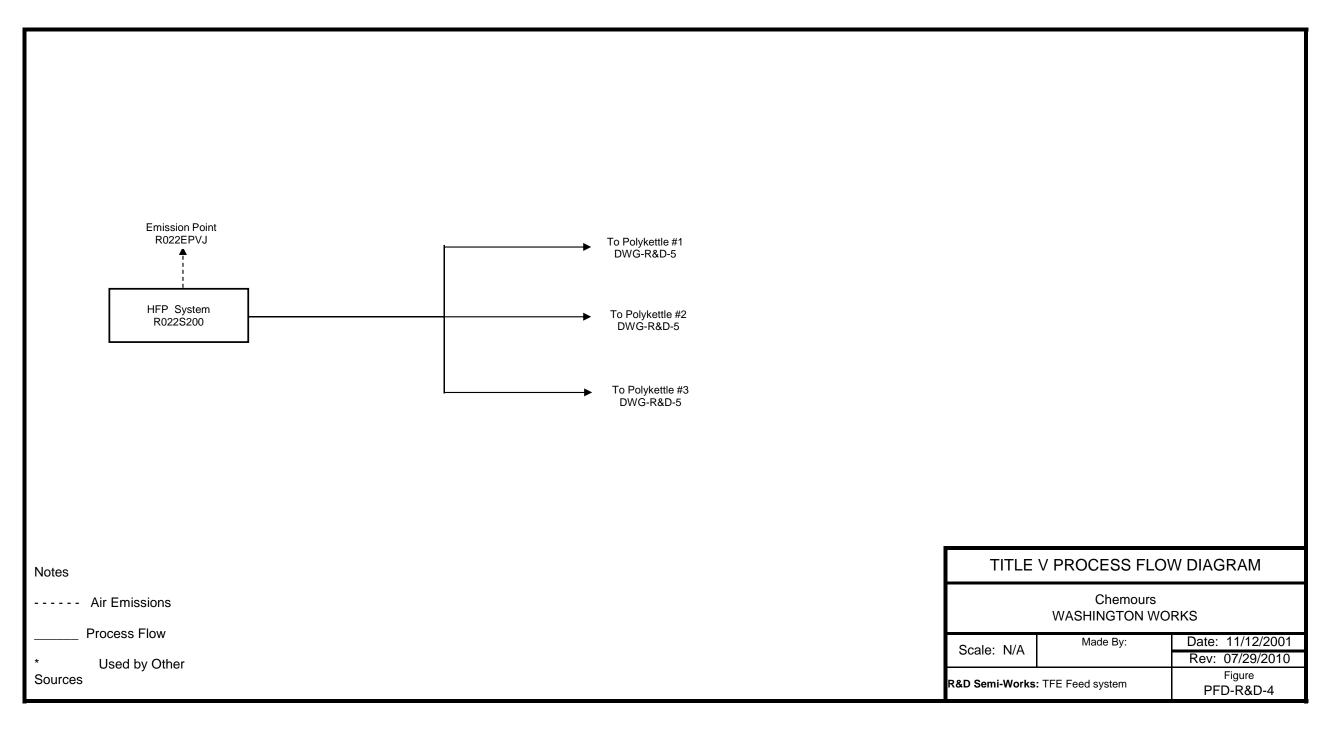
# **Attachment C - Process Flow Diagrams**

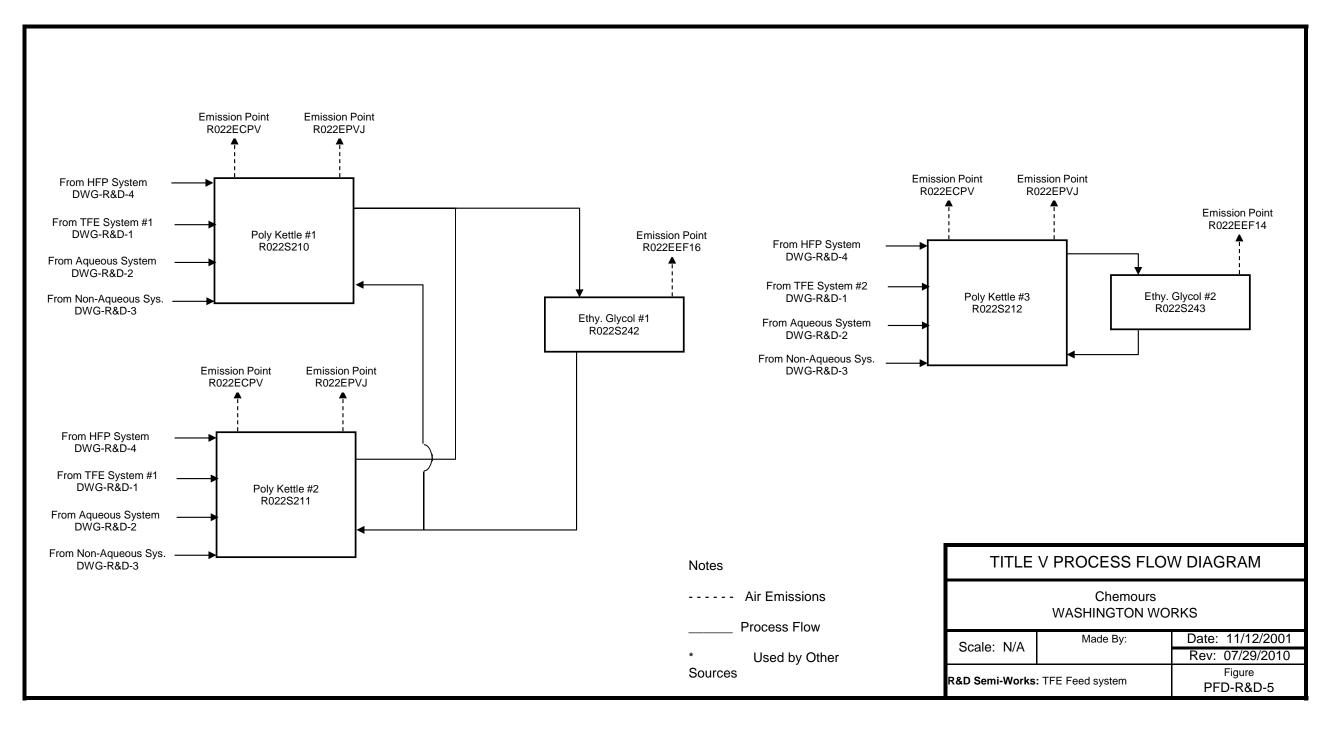
PFD-R&D-1	Semi-Works: TFE Feed system
PFD-R&D-2	Semi-Works: Aqueous Addition Feed system
PFD-R&D-3	Semi-Works: Non-Aqueous Addition Feed system
PFD-R&D-4	Semi-Works: HFP Feed System
PFD-R&D-5	Semi-Works: PolyKettles #1, #2 & #3
PFD-R&D-6	Semi-Works: PolyKettles #4 & #5
PFD-R&D-7	Semi-Works: Miscellaneous Equipment
PFD-R&D-8	Semi-Works: Parts Cleaner

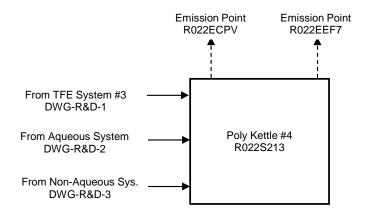


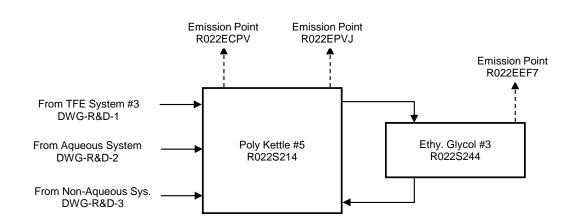












Notes

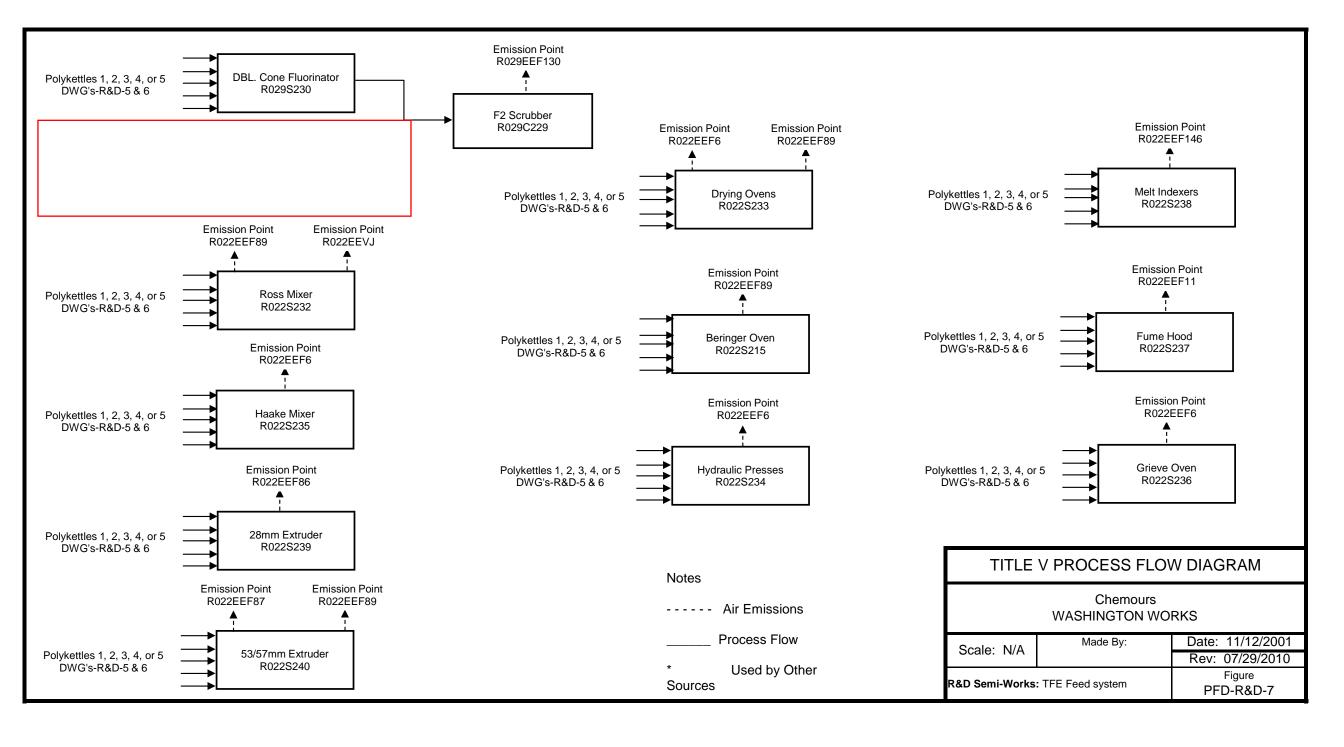
----- Air Emissions

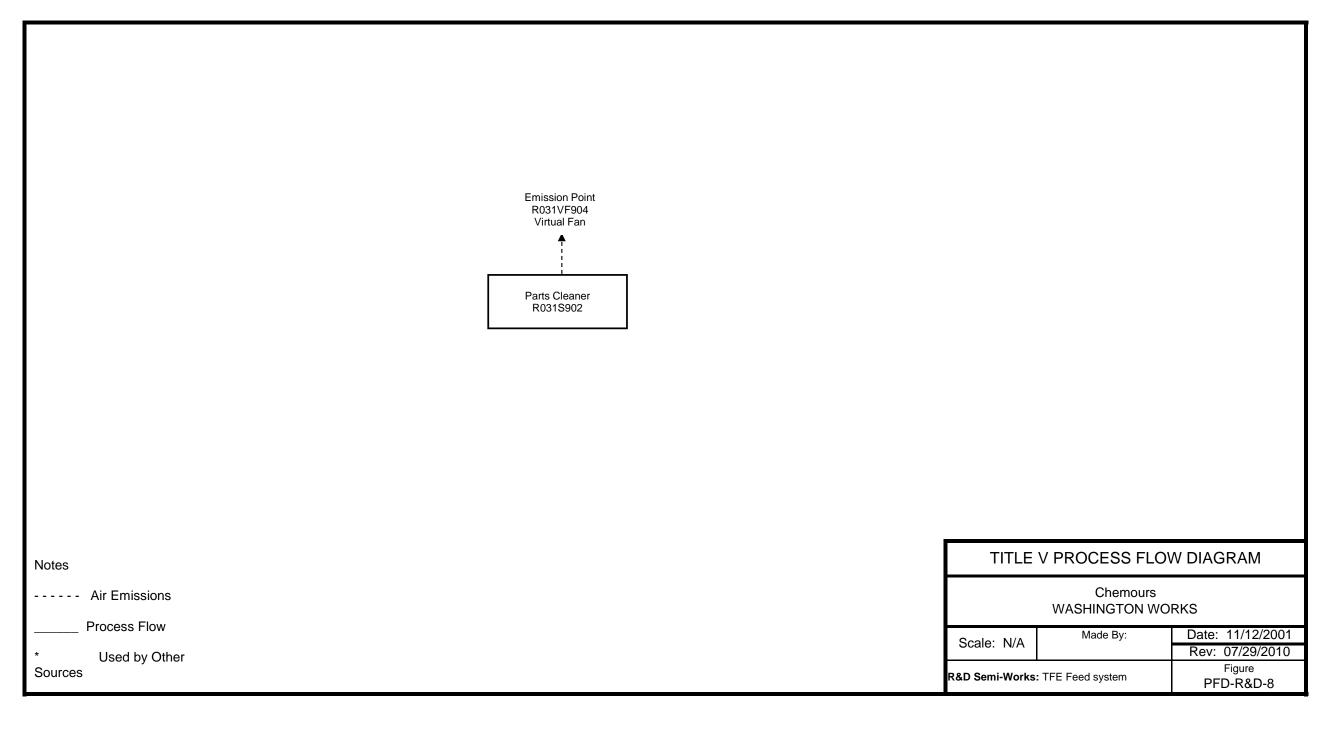
\_\_\_\_\_ Process Flow

\* Used by Other

Sources

TITLE V PROCESS FLOW DIAGRAM		
Chemours WASHINGTON WORKS		
Scale: N/A	Made By:	Date: 11/12/2001
Scale. IV/A		Rev: 07/29/2010
R&D Semi-Works: TFE Feed system		Figure PFD-R&D-6





## **Attachment D - Equipment List Document**

#### **ATTACHMENT D - Title V Equipment Table**

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

				•	
Emission Point ID <sup>1</sup>	Control Device <sup>1</sup>	Emission Unit ID <sup>1</sup>	Emission Unit Description	Design Capacity	Year Installed/ Modified
R022EEF007	NONE	R022S213B	REACTOR #4 REACTION VENT	1 LITER	1974
R022EEF007	NONE	RO22S244	COOLANT SYSTEM #3	30 GALLONS	1985
R022EEF009	NONE	R022S208A	FP SW AQ FEEDS VENT	12 LITERS	1980-2000
R022EEF011	NONE	R022S237	FUME HOOD	4 PPH	1964
R022EEF012	NONE	R022S209A	SW NONAQ FEEDS VENT	2.5 LITERS	1980-2000
R022EEF014	NONE	R022S243	COOLANT SYSTEM #2	10 GALLONS	1996
R022EEF016	NONE	R022S242	COOLANT SYSTEM #1	8 GALLONS	1988
R022EEF085	NONE	R022S240C	FEED HOPPER	500 PPH	1976
R022EEF086	NONE	R022S239	SMALL (28MM) EXTRUDER	10 PPH	1974
R022EEF087	NONE	R022S240A	LARGE (53mm) EXTRUDER(NOT IN SERVICE SINCE 2007)	500 PPH	1976
R022EEF089	NONE	R022S215	#1 OVEN (BERRINGER/MINI J)	10.5 PPH	1992
R022EEF089	NONE	R022S232A	ROSS MIXER VENT	0.25 PPH	1985
R022EEF089	NONE	R022S233B	DRYING OVENS	0.2 PPH	1964
R022EEF089	NONE	R022S240B	LARGE WORK HOOD	500 PPH	1976
R022EEF146	NONE	R022S238	SINTER OVEN	0.57 PPH	1964
R022EEVJ	NONE	R022S232B	MIXER EVAC	30 GALLONS	1985
R022EPK1	NONE	R022S210A	REACTOR/MIXER #1 VENT	10 GALLONS	1969
R022EPK2	NONE	R022S211A	REACTOR/MIXER #2 VENT	10 GALLONS	1968
R022EPK3	NONE	R022S212A	REACTOR/MIXER #3 VENT	10 GALLONS	1994
R022EPK5	NONE	R022S214A	REACTOR MIXER #5 VENT	1 GALLONS	1985
R022EPVJ	NONE	R022S200	HFP SYSTEM EVAC	4 GALLONS	1989
R022EPVJ	NONE	R022S205B	FP SW TFE TANK #1 EVAC	14 GALLONS	2004
R022EPVJ	NONE	R022S206B	FP SW TFE TANK #2 EVAC	10 GALLONS	1994
R022EPVJ	NONE	R022S207B	FP SW TFE TANK #3 EVAC	1.2 GALLONS	1985
R022EPVJ	NONE	R022S208B	SW AQ FEEDS EVAC	12 LITERS	1980-2000

<sup>1</sup>For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

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### **ATTACHMENT D - Title V Equipment Table**

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID <sup>1</sup>	Control Device <sup>1</sup>	Emission Unit ID <sup>1</sup>	Emission Unit Description	Design Capacity	Year Installed/ Modified
R031E902	NONE	R031S902	PART CLEANER	50 GALLONS	2002
22-E-215	NONE	22-S-215	MINI CLEANING OVEN	0.15 FT3	2002
22-E-109	NONE	22-S-109	RESEARCH LAB HOOD	2.830ACFM	1970
22-E-202	NONE	22-S-202	Upstairs Leased LAB HOOD (kuraray)	2.830ACFM	1970
22-E-208	NONE	22-S-208	RESEARCH LAB HOOD	2.830ACFM	1970
22-E-209	NONE	22-S-209	Control Lab hood(FTIR lab) upstairs	2.830ACFM	1970
R022EF51	NONE	R022SB0	Lab 114 HOOD	2.815 ACFM	1950
R022EF52	NONE	R022SB0(	Lab 114 HOOD	2.815 ACFM	1950
R022EF63	NONE	R022SB17	LAB 108 HOOD	2.815 ACFM	1950
R022EF65	NONE	R022SB19	LAB 101 (CONTROL LAB) WEST HOOD	2.815 ACFM	1950
R022EF66	NONE	R022SB20	LAB 101 (CONTROL LAB) EAST HOOD	2.815 ACFM	1950
R022EF115	NONE	R022SB36	LAB 210 (CONTROL LAB) DISPERSION HOC	2.815 ACFM	1985
R022EF117	NONE	R022SB38	HOOD	1.500ACFM	1985
R022EF118	NONE	R022S040	HOOD	2.815 ACFM	1985
R022EF132	NONE	R022S047	LOCAL VENT	12.000 ACFM	1985
R022ECPV	NONE	R022S204	FP SW 02 ANALYZER	4.5 SCFM	1978
R022ECPV	NONE	R022S205	FP SW TFE TANK #1 VENT	14 GALLONS	2004
R022ECPV	NONE	R022S206	FP SW TFE TANK #2 VENT	10 GALLONS	1994
R022ECPV	NONE	R022S207A	FP SW TFE TANK #3 VENT	1.2 GALLONS	1985
R022ECPV	NONE	R022S213A	Mothballed/out of service REACTOR #4 MIXED FEED VENT	1 LITRE	1974
R022ECPV	NONE	R022S247	MONOMER TRANSFER LINE	4 GALLONS	2002
R022EEF006	NONE	R022S233A	DRYING OVENS	3.5 PPH	1965-1995
R022EEF006	NONE	R022S234	HYDRAULIC PRESSES HOOD	0.35 PPH	1964-1992
R022EEF006	NONE	R022S235	HAAKE MIXER (SW east)	0.5 PPH	1996
R022EEF0	NONE	R022S236	#2 OVEN (GRIEVE)	0.05 PPH	1973

<sup>1</sup>For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

	Title V Equipment Table (equipment_table.doc)
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### **ATTACHMENT D - Title V Equipment Table**

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

		morginite	unit detitions in Section 1, teem 21 of the General 1	011115)	
Emission Point ID <sup>1</sup>	Control Device <sup>1</sup>	Emission Unit ID <sup>1</sup>	Emission Unit Description	Design Capacity	Year Installed/ Modified
R022EPVJ	NONE	RO22S209B	SW NONAQ FEEDS EVAC	2.5 LITERS	1980-2000
R022EPCJ	NONE	R022S210B	REACTOR/MIXER #1 EVAC VENT	10 GALLONS	1969
R022EPVJ	NONE	R022S211B	REACTOR/MIXER #2 EVAC VENT	10 GALLONS	1968
R022EPVJ	NONE	R022S212B	REACTOR/MIXER #3 EVAC VENT	10 GALLONS	1994
R022EPVJ	NONE	R022S214B	REACTOR/MIXER #5 EVAC VENT	1 GALLON	1985
R029EEF130	R029C229	R029S230	DOUBLE CONE FLUORINATOR	24 PPH	1985
R029EEF130	R029C229	R029S231	D&R'ed. No longer in service VIBRATING BED FLUORINATOR	NO LONGER IN Semiworks	1987
R031E903	INTEGRAL CYCLONE	R031S903	BEAD BLAST UNIT (SAND BLASTER)	900 ACFM	1993
I	•				

<sup>1</sup>For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

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# **Attachment E - Equipment Sheet for Facilities**

ATTACHMENT E - Emission Unit Form				
Emission Unit Description				
Emission unit ID number: 22-S-109	Emission unit name:  LAB 109 HOOD	List any control devices associated with this emission unit: NONE		
Provide a description of the emission EXHAUST HOOD IN LAB 109(EF-117) EF		esign parameters, etc	·.):	
Manufacturer:	Model number:	Serial number:		
BUFFALO FORGE	NA	NA		
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)	
/ / 1968	/ / 1970	/ / ; / / ;		
Design Capacity (examples: furnace 2830 ACFM	es - tons/hr, tanks - gallons):			
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operati	ng Schedule:	
12990 PPH	56896 TONS/YR	8760HRS/YR		
Fuel Usage Data (fill out all application	ble fields)			
Does this emission unit combust fuel?Yes No If yes, is it?				
Indirect FiredDirect			Direct Fired	
Maximum design heat input and/or maximum horsepower rating:  Type and Btu/hr rating of burner			nting of burners:	
NA		NA		
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.				
NONE				
Describe each fuel expected to be us	ed during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value	

Emissions Data			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>X</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
Hazardous Air Pollutants	Poter	ntial Emissions	
	PPH	TPY	
Methylene Chloride	0.0013	0.0055	
Regulated Pollutants other than	Potential Emissions		
Criteria and HAP	PPH	TPY	
List the method(s) used to calculate versions of software used, source an		ates of any stack tests conducted,	
ENGINEERING ESTIMATES			

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
A Decide to
Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.
THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22. THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.  MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH ALL RECORDS WILL BE KEPT FOR FIVE YEARS.
Are you in compliance with all applicable requirements for this emission unit?  YesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATTACHMENT E - Emission Unit Form				
Emission Unit Description				
Emission unit ID number:	Emission unit name:	List any control de		
22-S-202	Lab 202 Hood	with this emission unit:		
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	.):	
Exhaust Hood in lab 202 (EF-71) EP I	D: 22-E-202 Location: upstairs Buildir	ng 22 leased lab		
Manufacturer:	Model number:	Serial number:		
Buffalo Forge	NA	NA		
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)	
/ / 1968	/ / 1970	/ / ; / / ;		
Design Capacity (examples: furnace 2830 ACFM	es - tons/hr, tanks - gallons):			
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:		
12,990 PPH	56,896 TON/YR	8760 HR/YR		
Fuel Usage Data (fill out all applical	ble fields)			
Does this emission unit combust fuel?YesY NoIf yes, is it?				
		Indirect Fired	Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr ra	ting of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.				
Describe each fuel expected to be used during the term of the permit.				
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value	
	I.			

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	NA	NA
Nitrogen Oxides (NO <sub>X</sub> )	NA	NA
Lead (Pb)	NA	NA
Particulate Matter (PM <sub>2.5</sub> )	NA	NA
Particulate Matter (PM <sub>10</sub> )	NA	NA
Total Particulate Matter (TSP)	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	NA	NA
Volatile Organic Compounds (VOC)	NA	NA
Hazardous Air Pollutants	Potentia	l Emissions
	PPH	TPY
Methylene Chloride	0.0013	0.0055
Regulated Pollutants other than	Potentia	l Emissions
Criteria and HAP	PPH	TPY
List the method(s) used to calculate to versions of software used, source and		s of any stack tests conducted,
Engineering Estimate		

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
<u>✓</u> Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)  Monitoring shall be by performing a visible emissions check on the stack once per month.  The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.  Pounds of production or laboratory methods ran, will be recorded each month.  Monthly maintenance records will be kept.  All records of associated records with above will be kept for five years
Are you in compliance with all applicable requirements for this emission unit?  YesNo  If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number: 22-S-208	Emission unit name:  LAB 208 HOOD	List any control de with this emission u NONE	
Provide a description of the emission unit (type, method of operation, design parameters, etc.):  LAB 208 EXHAUST HOOD EP ID 22-E-208; EF118 LOCATION: TELOMERS GC LAB			
Manufacturer: BUFFALO FORGE	Model number:	Serial number:	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1968	/ / 1970	/ / ; / / ;	
Design Capacity (examples: furnace 2830ACFM	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operation	ng Schedule:
12,990 PPH	56,896 TON/YR	8760 HR/YR	
Fuel Usage Data (fill out all applical	ole fields)		
Does this emission unit combust fuel?Yes No		If yes, is it?	
	Indirect Fired	Direct Fired	
Maximum design heat input and/or	Type and Btu/hr ra	ting of burners:	
NA NA		NA	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
NA			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data				
Criteria Pollutants		Potential Emissions		
	PPH	Т	TPY	
Carbon Monoxide (CO)				
Nitrogen Oxides (NO <sub>X</sub> )				
Lead (Pb)				
Particulate Matter (PM <sub>2.5</sub> )				
Particulate Matter (PM <sub>10</sub> )				
Total Particulate Matter (TSP)				
Sulfur Dioxide (SO <sub>2</sub> )				
Volatile Organic Compounds (VOC)	0.000001	0.000044		
Hazardous Air Pollutants		Potential Emissions		
	PPH	Т	TPY	
METHYLENE CHLORIDE	0.0013	0.0055		
Regulated Pollutants other than		Potential Emissions		
Criteria and HAP	PPH	Т	TPY	
List the method(s) used to calculate			conducted,	
versions of software used, source an	d dates of emission factor	rs, etc.).		
ENGINEERING ESTIMATE				

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.
THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.
THE POUNDS OF PRODUCTION, OR APPLICABLE LABORATORY TESTS RUN, WILL BE RECORDED EACH MONTH.
MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH.
ALL RECORDS WILL BE KEPT FOR FIVE YEARS.
Are you in compliance with all applicable requirements for this emission unit?  YesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control devices associated with this emission unit:	
22-S-209	Lab Hood	NA	
Provide a description of the emission unit (type, method of operation, design parameters, etc.):  Exhaust hood in lab 209 (EF-113) EF ID: 22-E-209 Location: Control Lab-FTIR Lab			
Manufacturer:	Model number:	Serial number:	
Buffalo Forge	NA	NA	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1968	/ / 1970	/ / ; / / ;	
Design Capacity (examples: furnace 2830 ACFM	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operati	ng Schedule:
12,990 pph	56,896 ton/yr	8760 hr/yr	
Fuel Usage Data (fill out all applical	ble fields)		
Does this emission unit combust fuel?Yes No		If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr ra	ting of burners:
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data				
Criteria Pollutants	Potential Emissions			
	PPH	TPY		
Carbon Monoxide (CO)	NA	NA		
Nitrogen Oxides (NO <sub>X</sub> )	NA	NA		
Lead (Pb)	NA	NA		
Particulate Matter (PM <sub>2.5</sub> )	NA	NA		
Particulate Matter (PM <sub>10</sub> )	NA	NA		
Total Particulate Matter (TSP)	NA	NA		
Sulfur Dioxide (SO <sub>2</sub> )	NA	NA		
Volatile Organic Compounds (VOC)	NA	NA		
Hazardous Air Pollutants	Potentia	l Emissions		
	PPH	TPY		
Methylene Chloride	0.0013	0.0055		
Regulated Pollutants other than	Potential Emissions			
Criteria and HAP	PPH	TPY		
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).				
Engineering Estimate				

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
✓ Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emissions check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The number of Laboratory Tests run or the Pounds of production will be recorded each month.
Maintenance records will be monitored and recorded each month
All records will be kept for five years.
Are you in compliance with all applicable requirements for this emission unit?  YesNo
If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control devices associated	
R022S-047	PPL Area hoods	with this emission u 22-C-001	ınit:
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	.):
Molding room hoods EP ID R022EF132; A	REA HAS BEEN D&R'd		
Manufacturer:	Model number:	Serial number:	
BUFFALO FORGE	NA	NA	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1985	/ / 1985	/ / ; / / ;	
Design Capacity (examples: furnace 12000ACFM	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operation	ng Schedule:
50,400	220720 TONS/YR	8760 HR/YR	
Fuel Usage Data (fill out all applical	ole fields)		
Does this emission unit combust fuel?Yes No		If yes, is it?	
	Indirect Fired	Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr ra	ting of burners:
NA NA		NA	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
NA			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data				
Criteria Pollutants	Potenti	ial Emissions		
	PPH	TPY		
Carbon Monoxide (CO)				
Nitrogen Oxides (NO <sub>X</sub> )				
Lead (Pb)				
Particulate Matter (PM <sub>2.5</sub> )				
Particulate Matter (PM <sub>10</sub> )	0.7	3.1		
Total Particulate Matter (TSP)	0.7	3.1		
Sulfur Dioxide (SO <sub>2</sub> )				
Volatile Organic Compounds (VOC)				
Hazardous Air Pollutants	Potenti	ial Emissions		
	PPH	TPY		
FORMALDEHYDE	0.00006	0.0003		
Regulated Pollutants other than	Potential Emissions			
Criteria and HAP	PPH	TPY		
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted,				
versions of software used, source an	d dates of emission factors, etc.).			
ENGINEERING ESTIMATE				

$App_{i}$	licabi	le R	equir	rements
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List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

Formaldehyde was part of the 45 CSR 27 compliance plan when the site was solely under the control of DuPont. Chemours no longer generates, or has, sufficient Formaldehyde emissions to trigger 45 CSR 27 when excluding the emissions from the Waste Water treatment plant which must be operated to support HON MACT disposal of the formaldehyde generated by DuPont.. Chemours wishes to entertain the elimination of the 45 CSR 27 applicability for formaldehyde from the Chemours Site Permits.

#### Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE NUMBER OF THE UNITS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

Are you in compliance with all applicable requirements for this emission unit? Ves \_\_\_No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

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ATTACHMENT E - Emission Unit Form					
Emission Unit Description					
Emission unit ID number:	Emission unit name:	List any control devices associated with this emission unit:			
R022S-200	HFP System Evacuation Vent				
Provide a description of the emission unit (type, method of operation, design parameters, etc.):					
HFP System Evacuation Vent. EP ID R022	EPVJ Location Cell #1				
Manufacturer:	Model number:	Serial number:			
Custom made by DuPont	NA	NA			
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)		
/ / 1989	/ / 1989	/ / ; / / ;			
Design Capacity (examples: furnace Batch process- 4 gallons	s - tons/hr, tanks - gallons):				
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:			
1 hr/batch	4 batches	4 hr/yr			
Fuel Usage Data (fill out all applical	ole fields)				
Does this emission unit combust fuel?Yes No		If yes, is it?			
		Indirect FiredDirect Fired			
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr ra	ting of burners:		
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide		
Describe each fuel expected to be used during the term of the permit.					
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value		

Emissions Data					
Criteria Pollutants	Potential Emissions				
	РРН	TPY			
Carbon Monoxide (CO)					
Nitrogen Oxides (NO <sub>X</sub> )					
Lead (Pb)					
Particulate Matter (PM <sub>2.5</sub> )					
Particulate Matter (PM <sub>10</sub> )					
Total Particulate Matter (TSP)					
Sulfur Dioxide (SO <sub>2</sub> )					
Volatile Organic Compounds (VOC)	47.4	0.092			
Hazardous Air Pollutants	Potential Emissions				
	PPH	TPY			
Toluene	1.5E-4	2.9E-7			
Regulated Pollutants other than	Potential Emissions				
Criteria and HAP	PPH	TPY			
Ozone Depleting Chemical	0.031	6.2E-5			
List the method(s) used to calculate versions of software used, source an					
versions of software used, source an	a dates of emission factors, etc.).				
Engineering estimate					

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
✓ Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A. Method 22,.
The number of Laboratory tests or the units or Pounds of production will be recorded each month.
Maintenance records will be monitored and recorded each month.
All records will be kept for five years.
Are you in compliance with all applicable requirements for this emission unit?  YesNo
If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form						
Emission Unit Description						
Emission unit ID number:	Emission unit name:	List any control devices associated				
R022S-204	Oxygen analyzer	with this emission unit:				
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	.):			
Oxygen analyzer EP ID: R022ECPV						
Manufacturer:	Model number:	Serial number:				
Teledyne	NA	NA				
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)			
/ / 1978	/ / 1978	/ / ; / / ;				
Design Capacity (examples: furnace 4.5 scfm	es - tons/hr, tanks - gallons):					
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:				
1.354 pph	5.9 TONS/YR	8760 HR/YR				
Fuel Usage Data (fill out all applical	ble fields)					
Does this emission unit combust fue	<b>!?</b> Yes _ <b>✓</b> No	If yes, is it?				
		Indirect FiredDirect Fired				
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr rating of burners:				
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide			
Describe each fuel expected to be us	ed during the term of the permit.					
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value			
		3000000	. 3300			
L	I.	1				

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>X</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	1.354	5.9
Hazardous Air Pollutants	Po	otential Emissions
	PPH	TPY
Hydrochloric acid	0.00005	0.00022
Regulated Pollutants other than	Po	otential Emissions
Criteria and HAP	PPH	TPY
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).		
Engineering estimate		

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
✓ Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appending A, Method 22.
The number of Laboratory tests or the units or Pounds of production will be recorded each month.
Maintenance records will be monitored and recorded each month.
All records will be kept for five years.
Are you in compliance with all applicable requirements for this emission unit?  YesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATT	ACHMENT E - Emission Uni	t Form	
Emission Unit Description			
Emission unit ID number:	Emission unit name:  Tank #1 Evacuation vent	List any control devices associated with this emission unit:	
Provide a description of the emissio		esign parameters, etc	.):
Manufacturer:	Model number:	Serial number:	
Custom made by DuPont	NA	NA	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 2004	/ / 2004	/ / ; / / ;	1 1
Design Capacity (examples: furnace Batch process- 14 gallons	es - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
0.17 hr/batch	12 batches	2 hr/yr	
Fuel Usage Data (fill out all applica	ble fields)		
Does this emission unit combust fue	<b>!?</b> Yes _ <b>_′</b> No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	ting of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be us	sed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>X</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	3.5	0.0035	
Hazardous Air Pollutants	Potenti	al Emissions	
	PPH	TPY	
Hydrogen Chloride	1.3E-4	1.3E-7	
Regulated Pollutants other than	Potential Emissions		
Criteria and HAP	PPH	TPY	
Ozone Depleting Chemical	0.013	1.3E-5	
List the method(s) used to calculate	the potential emissions (include dat	es of any stack tests conducted,	
versions of software used, source an	d dates of emission factors, etc.).		
Engineering estimate			

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
Units counts fr Laboratory tests or Pounds of production will be recorded each month.
Maintenance records will be monitored and recorded each month.
All records will be kept for five years.
Are you in compliance with all applicable requirements for this emission unit?  YesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control devices associated	
R022S-206A	Tank #2 vent	with this emission u	init: none
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc	.):
FP SW TFE Tank #2 Vent EP ID: R022E0	CPV Location Cell 3 (SW)		
Manufacturer:	Model number:	Serial number:	
Custom made by DuPont	NA	NA	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1994	/ / 1994	/ / ; / / ;	
Design Capacity (examples: furnace Batch Process-10 gallons	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
1 hr/batch	12 batches	12 batches/yr	
Fuel Usage Data (fill out all applical	ble fields)		
Does this emission unit combust fue	1?Yes _ <b></b> No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	iting of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>X</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	106.4	0.638
Hazardous Air Pollutants		Potential Emissions
	PPH	TPY
Hydrochloric Acid	0.004	0.000024
Regulated Pollutants other than		Potential Emissions
Criteria and HAP	PPH	TPY
List the method(s) used to calculate versions of software used, source an Engineering Estimate		ade dates of any stack tests conducted, etc.).

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
Unit numbers of laboratory tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit?  YesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATT	ACHMENT E - Emission Uni	t Form	
Emission Unit Description			
Emission unit ID number:	Emission unit name:  Tank #2 Evacuation Vent	List any control devices associated with this emission unit: none	
Provide a description of the emission  FP SW TFE Tank #2 Evacuation Vent EP II	,	esign parameters, etc	.):
Manufacturer:	Model number:	Serial number:	
Custom made by Dupont	NA	NA	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 2004	/ / 2004	/ / ; / / ;	
Design Capacity (examples: furnace Batch Process- 10 gallon	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operati	ng Schedule:
0.17 hr.batch	12 batches	2 hr/yr	
Fuel Usage Data (fill out all applical	ble fields)		
Does this emission unit combust fue	<b>!?</b> Yes _ <b>✓</b> No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	ating of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	РРН	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>X</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	2.6	0.0026
Hazardous Air Pollutants	Poten	tial Emissions
	РРН	TPY
Hydrogen Chloride	9.6E-5	9.5E-8
Regulated Pollutants other than	Poten	tial Emissions
Criteria and HAP	РРН	TPY
List the method(s) used to calculate versions of software used, source an	the potential emissions (include da d dates of emission factors, etc.).	ites of any stack tests conducted,
Engineering Estimate		

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
✓ Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall
be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The Unit count of Laboratory tests of the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit? VesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control devices associated	
R022S-207A	Tank #3 Vent	with this emission t	unit: None
Provide a description of the emissio	n unit (type, method of operation, d	esign parameters, etc	e.):
FP SW TFE Tank #3 Vent EP ID: R022EC	PV Location: Cell #5		
Manufacturer:	Model number:	Serial number:	
Custom Made by DuPont	NA	NA	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1985	/ / 1985	/ / ; / / ;	
Design Capacity (examples: furnace Batch process -1.2 gallons	es - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
1 hr/batch	12 batches	12 Batches/year	
Fuel Usage Data (fill out all applica	ble fields)		
Does this emission unit combust fue	<b>!?</b> Yes _ <b>✓</b> No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	nting of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
<u>-</u>		Max. Ash Content	BTU Valu

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>X</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	12	0.072
Hazardous Air Pollutants	P	otential Emissions
	РРН	TPY
Hydrogen Chloride	0.00045	0.0000027
Regulated Pollutants other than	P	otential Emissions
Criteria and HAP	PPH	TPY
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).		
Engineering Estimate		

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit? YesNo
If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form				
Emission Unit Description				
Emission unit ID number:	Emission unit name:	List any control devices associated with this emission unit:		
R022S-207B	Tank#3 Evacuation Vent	None	mit.	
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	.):	
FP SW TFE Tank #3 Evacuation Vent EP	ID: R022EPVJ Location: cell 5			
Manufacturer:	Model number:	Serial number:		
Custom made by DuPont	NA	NA		
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)	
/ / 1985	/ / 1985	/ / ; / / ;		
Design Capacity (examples: furnace Batch Process- 1.2 Gallons	es - tons/hr, tanks - gallons):			
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:		
0.17 hr/batch	12 batches	2 hr/ yr		
Fuel Usage Data (fill out all application	ble fields)			
Does this emission unit combust fue	<b>!?</b> Yes _ <b>_′</b> No	If yes, is it?		
		Indirect Fired	Direct Fired	
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	ting of burners:	
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide	
Describe each fuel expected to be us	ed during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value	

Emissions Data			
Criteria Pollutants	Potential Emissions		
	РРН	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>X</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	0.29	2.9E-4	
Hazardous Air Pollutants	Potentia	al Emissions	
	РРН	TPY	
Hydrogen Chloride	1.1E-5	1.1E-8	
Regulated Pollutants other than	Potential Emissions		
Criteria and HAP	РРН	TPY	
ozone depleting chemical	1.1E-3	1.1E-6	
List the method(s) used to calculate		es of any stack tests conducted,	
versions of software used, source an	d dates of emission factors, etc.).		
Engineering estimate			

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
<u>✓</u> Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five yearsecords will be kept for five years.
Are you in compliance with all applicable requirements for this emission unit?  YesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT</b> F.
If no, complete the Schedule of Comphance Form as ATTACHIVENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control devices associated with this emission unit: None	
R022S-208A	Aqueous Feed Vent		
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc.	.):
FP SW Aqueous Feed, EP ID: R022EEF00	9		
Manufacturer:	Model number:	Serial number:	
Gilson	NA	NA	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	): (MM/DD/YYYY)
/ / 1980-2000	/ / 1980-2000	/ / ; / / ;	
Design Capacity (examples: furnace Batch process - 12 liters	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operation	ng Schedule:
1 hr/batch	3500 batches	3500 hrs/yr	
Fuel Usage Data (fill out all applical	ble fields)		
Does this emission unit combust fuel	1?Yes No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	ting of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fue		). For each fuel type	listed, provide
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>X</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	5.4E-3	2.7E-3	
Hazardous Air Pollutants	Potent	al Emissions	
	PPH	TPY	
Methanol	1.6E-3	1.4E-3	
Regulated Pollutants other than	Potent	ial Emissions	
Criteria and HAP	PPH	TPY	
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).			
Engineering estimate			

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
<u>✓</u> Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit? VesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	<b>Emission unit name:</b>	List any control devices associated	
R022S-208B	Aqueous Feed Evacuation Vent	with this emission u	init: None
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc	.):
SW Aqueous Feed Vent, EP ID: R022EPV	J		
Manufacturer:	Model number:	Serial number:	
Gilson	NA	NA	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1980	/ / 1980	/ / 2000 ; / / ;	
Design Capacity (examples: furnace Batch Process - 12 liters	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
1hr/batch	3500 batches	3500 hr/yr	
Fuel Usage Data (fill out all applical	ble fields)		
Does this emission unit combust fue	1?Yes No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	ting of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>X</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	6.2E-3	4.3E-3	
Hazardous Air Pollutants		Potential Emissions	
	РРН	TPY	
Methanol	3.1E-3	2.2E-3	
Regulated Pollutants other than		Potential Emissions	
Criteria and HAP	PPH	TPY	
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).			
Engineering estimate			

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit? Yes No

Page \_\_\_\_\_ of \_\_\_\_

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control devices associated	
R022S-209A	Feed Vent	with this emission u	init: None
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc	.):
SW Nonqueous Feed Vent EP ID: R022EI	EF012		
Manufacturer:	Model number:	Serial number:	
Gilson	NA	NA	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1980	/ / 1980	/ / 2000 ; / / ;	
Design Capacity (examples: furnace Batch Process 2.5 Liters	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
1 hr/batch	3500 Batches	3500 hrs/yr	
Fuel Usage Data (fill out all applical	ble fields)		
Does this emission unit combust fue	<b>!</b> ?Yes _ <b>_✓</b> No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	iting of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data				
Criteria Pollutants	Potential Emissions			
	РРН	TPY		
Carbon Monoxide (CO)				
Nitrogen Oxides (NO <sub>X</sub> )				
Lead (Pb)				
Particulate Matter (PM <sub>2.5</sub> )				
Particulate Matter (PM <sub>10</sub> )				
Total Particulate Matter (TSP)				
Sulfur Dioxide (SO <sub>2</sub> )				
Volatile Organic Compounds (VOC)	0.032	0.019		
Hazardous Air Pollutants	Potential Emissions			
	РРН	TPY		
Hydrochloric Acid	5.1E-7	1.5E-7		
Maleic anhydride & Methyl methacrylate	0.014	4.1E-3		
Trichloroethylene	0.018	5.4E-3		
Vinyl Accetate	0.012	3.6E-3		
Regulated Pollutants other than	Potentia	al Emissions		
Criteria and HAP	РРН	TPY		
List the method(s) used to calculate		es of any stack tests conducted,		
versions of software used, source an	d dates of emission factors, etc.).			
Engineering Estimate				

Applicable Requirements			
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.			
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.			
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.			
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223			
✓ Permit Shield			
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)			
Monitoring shall be by performing a visible emissions check on the stack once per month.			
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.			
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.			
Monthly maintenance records will be kept.			
All records of checks will be kept for five years			
Are you in compliance with all applicable requirements for this emission unit?  YesNo			

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form					
Emission Unit Description					
Emission unit ID number:	Emission unit name:	List any control devices associated with this emission unit: None			
R022S-209B	Non Aqueous Feed Vent				
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	·.):		
SW Non- aqueous Feed Vent EP ID: R022	2EPVJ				
Manufacturer:	Model number:	Serial number:			
Gilson	NA	NA			
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s): (MM/DD/YYYY)			
/ / 1980	/ / 1980	/ / 2000 ; / / ;			
Design Capacity (examples: furnace Batch Process 2.5 Liters	es - tons/hr, tanks - gallons):				
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:			
1 hr/batch	3500 batches	3500hr/yr			
Fuel Usage Data (fill out all applicate	ble fields)				
Does this emission unit combust fuel?Yes No		If yes, is it?			
		Indirect FiredDirect Fired			
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:			
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide		
Describe each fuel expected to be us	ed during the term of the permit.				
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value		
	Max. Buildi Content	Max. 11511 Content	DIO Value		
		L	l .		

Emissions Data		
Criteria Pollutants	Potential Emissions	
	РРН	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>X</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	0.13	0.107
Hazardous Air Pollutants	Potentia	al Emissions
	РРН	TPY
Hydrogen Chloride	2.0E-6	1.7E-6
Maleic Anhydride, Methyl Methacrylate	0.055	0.035
Trichloroethylene	0.074	0.047
Vinyl Acetate	0.048	0.031
Regulated Pollutants other than	Potential Emissions	
Criteria and HAP	РРН	TPY
ozone depleting chemicals	2.6E-4	2.2 E-4
List the method(s) used to calculate		es of any stack tests conducted,
versions of software used, source an	d dates of emission factors, etc.).	
Engineering Estimate		

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit?  YesNo
Are you in compnance with an applicable requirements for this emission unit: resNO

ATTACHMENT E - Emission Unit Form				
Emission Unit Description				
Emission unit ID number:	Emission unit name:	List any control devices associated		
R022S-210A	PK1 Reactor Mixer Vent	with this emission u	ınit:	
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	.):	
PK1 Reactor/Mixer#1 Vent EP ID:R022EI	PK1 Location: cell 1			
Manufacturer:	Model number:	Serial number:		
Custom made by DuPont	NA	NA		
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)	
/ / 1969	/ / 1969	/ / ; / / ;		
Design Capacity (examples: furnace 1 hr./batch10 gallons Idled awaiting busin	, ,			
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:		
1 batch/ hr.	700hrs/yr.	700hr/yr.		
Fuel Usage Data (fill out all applical	ble fields)			
Does this emission unit combust fue	<b>!?</b> Yes _ <b>✓</b> No	If yes, is it?		
		Indirect Fired	Direct Fired	
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	ting of burners:	
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide	
Describe each fuel expected to be us	ed during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value	

Emissions Data			
Criteria Pollutants	Potential Emissions		
	РРН	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>X</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	7.8	4.72	
Hazardous Air Pollutants	Potentia	l Emissions	
	РРН	TPY	
Toluene	3.8E-5	1.3E-5	
Methanol	0.25	0.088	
Acetonitrile	8.0E-5	2.8E-5	
Maleic Anhydride, Methyl methacrylate, vinyl acetate, trichloroethylene	0.3	0.68	
Regulated Pollutants other than	Potential Emissions		
Criteria and HAP	РРН	TPY	
ozone depleting chemical	0.54	0.19	
List the method(s) used to calculate versions of software used, source an		s of any stack tests conducted,	
Engineering Estimates			

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
See attachment list for all applicable requirements
<u>✓</u> Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit?  YesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control devices associated with this emission unit: NONE	
R022S-210B	PK#1 REACTOR/MIXER EVACUATION		
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc	.):
PK#1 REACTOR/MIXER EVACUATION VE	ENT EP ID: R022EPCJ Location: cell 1		
Manufacturer:	Model number:	Serial number:	
DUPONT	NA	NA	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1969	/ / 1969	/ / ; / / ;	
Design Capacity (examples: furnace BATCH PROCESS - 10 GALLON IDLED A			
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
1HR/BATCH	700 BATCHES	700HRS/YR	
Fuel Usage Data (fill out all applical	ble fields)		
Does this emission unit combust fue	!?Yes No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	ating of burners:
NA		NA	
List the primary fuel type(s) and if a the maximum hourly and annual fu		. For each fuel type	listed, provide
NA			
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	РРН	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>X</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	0.67	0.235
Hazardous Air Pollutants	Potentia	al Emissions
	РРН	TPY
MALEIC ANHYDRIDE, METHYL METHACRYLATE, VINYL ACETATE, TRICHLOROETHYLENE	8.4E-3	2.1E-2
TOLUENE	6.1E-7	2.2E-7
ACETONITRILE	1.3E-7	4.5E-8
METHANOL	4.0E-4	1.4E-4
Regulated Pollutants other than	Potential Emissions	
Criteria and HAP	РРН	TPY
OZONE DEPLETING CHEMICALS	3.1E-3	1.1E-3
List the method(s) used to calculate		es of any stack tests conducted,
versions of software used, source and	d dates of emission factors, etc.).	
ENGINEERING ESTIMATE		

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit?YesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control devices associated	
R022S-211A	PK2 Reactor/mixer Vent	with this emission t	ınit:
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	.):
PK2 Reactor/Mixer #2 Vent, EP ID: R022E	PK2 Location Cell 1		
Manufacturer:	Model number:	Serial number:	
Custom made by DuPont	NA	NA	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1969	/ / 1969	/ / ; / / ;	
Design Capacity (examples: furnace 1 hr/batch- 10 gallon	es - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
1 batch/hr	700 hrs/yr, 700 batches/ yr	700 hr/yr	
Fuel Usage Data (fill out all applica	ble fields)		
Does this emission unit combust fue	<b>!?</b> Yes _ <b>✓</b> No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	ting of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be us	ed during the term of the permit.	1	
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	РРН	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>X</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	7.8	4.72
Hazardous Air Pollutants	Potentia	al Emissions
	РРН	TPY
Toluene	3.8E-5	1.3E-5
Methanol	0.25	0.088
Acetonitrile	8.0E-5	2.8E-5
Maleic anhydride, Methyl methacrylate, vinyl acetate, trichloroethylene	0.3 each	0.68 each
Regulated Pollutants other than	Potential Emissions	
Criteria and HAP	PPH	TPY
ozone depleting chemical	0.54	0.19
List the method(s) used to calculate		es of any stack tests conducted,
versions of software used, source an	u dates of emission factors, etc.).	
Engineering estimate		

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit?  YesNo

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name: PK2 Reactor/mixer Evac Vent	List any control devices associated with this emission unit:	
Provide a description of the emission  PK2 Reactor/Mixer #2 Evacuation Vent, Electron PK2 Reactor/Mixer PK2 Reactor/Mixe		esign parameters, etc	<b>.):</b>
Manufacturer:	Model number:	Serial number:	
Custom made by DuPont	NA	NA	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1988	/ / 1988	/ / ; / / ;	
Design Capacity (examples: furnace 1 hr/batch- 10 gallon	es - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
1 batch/hr	700 hrs/yr, 700 batches/yr	700 hr/yr	
Fuel Usage Data (fill out all applica	ble fields)		
Does this emission unit combust fue	<b>!?</b> Yes _ <b>_′</b> No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	ating of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be us	sed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	РРН	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>X</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	0.67	0.235
Hazardous Air Pollutants	Potentia	al Emissions
	РРН	TPY
Toluene	6.1E-7	2.2E-7
Methanol	4.0E-4	1.4E-4
Acetonitrile	1.3E-7	4.5E-8
Maleic anhydride, Methyl methacrylate, Vinyl acetate, trichloroethylene	8.4E-3 each	2.1E-2 each
Regulated Pollutants other than	Potential Emissions	
Criteria and HAP	PPH	TPY
Ozone Depleting Chemical	0.0031	0.0011
List the method(s) used to calculate		es of any stack tests conducted,
versions of software used, source an	d dates of emission factors, etc.).	
Engineering estimate		

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
✓ Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit?  YesNo

Page \_\_\_\_\_ of \_\_\_\_

ATTACHMENT E - Emission Unit Form				
Emission Unit Description				
Emission unit ID number:	Emission unit name: PK3 Reactor/Mixer Vent	List any control devices associated with this emission unit:		
Provide a description of the emission PK3 Reactor/Mixer #3 Vent. EP ID:R022E	on unit (type, method of operation, d  PK3 Location: SW Cell #3.	esign parameters, etc	.):	
Manufacturer:	Model number:	Serial number:		
Custom made by DuPont	NA	NA		
Construction date: (MM/DD/YYYY) / 1969	Installation date: (MM/DD/YYYY) / 1969	Modification date(s	1 1	
Design Capacity (examples: furnace 1 hr/batch- 10 gallons	es - tons/hr, tanks - gallons):			
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:		
1 batch/hr	700 hrs/yr 700 batches/yr	700 hr/yr		
Fuel Usage Data (fill out all applica	ble fields)	1		
Does this emission unit combust fue	el?Yes No	If yes, is it?		
		Indirect Fired	Direct Fired	
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra		
List the primary fuel type(s) and if the maximum hourly and annual fu	applicable, the secondary fuel type(s nel usage for each.	). For each fuel type	listed, provide	
Describe each fuel expected to be us	sed during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value	

Emissions Data			
Criteria Pollutants	Potential Emissions		
	РРН	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>X</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	7.8	4.72	
Hazardous Air Pollutants	Potentia	l Emissions	
	PPH	TPY	
Toluene	3.8E-5	1.3E-5	
Methanol	0.25	0.088	
Acetonitrile	8.0E-5	2.8E-5	
Maleic anhydride, Methyl methacrylate, Vinyl acetate, Trichlorethylene	0.3 each	0.68 each	
Regulated Pollutants other than	Potential Emissions		
Criteria and HAP	PPH	TPY	
Ozone Depleting Chemical	0.54	0.19	
List the method(s) used to calculate a versions of software used, source and		s of any stack tests conducted,	
Engineering estimate			

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
✓ Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit?  YesNo

ATTACHMENT E - Emission Unit Form				
Emission Unit Description				
Emission unit ID number:	Emission unit name:	List any control de		
R022S-212B	PK 3 Reactor/Mixer Evacuation Vent	with this emission u	init:	
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	.):	
PK3 Reactor/Mixer #3 Evacuation Vent. ER	PID:R022EPVJ Location Cell #3			
Manufacturer:	Model number:	Serial number:		
Custom made by DuPont	NA	NA		
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)	
/ / 1988	/ / 1988	11 /01 /2021 ;		
Design Capacity (examples: furnace 1 hr/batch	es - tons/hr, tanks - gallons):			
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:		
1 batch/hr	700 hrs/yr 700 batches/yr	700 hr/yr		
Fuel Usage Data (fill out all applical	ble fields)			
Does this emission unit combust fue	1?Yes No	If yes, is it?		
		Indirect Fired	Direct Fired	
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	ting of burners:	
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide	
Describe each fuel expected to be used during the term of the permit.				
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value	

Emissions Data		
Criteria Pollutants	Potential Emissions	
	РРН	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>X</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	0.67	0.235
Hazardous Air Pollutants	Potentia	al Emissions
	РРН	TPY
Toluene	6.1E-7	2.2E-7
Methanol	4.0E-4	1.4E-4
Acetonitrile	1.3E-7	4.5E-8
Maleic anhydride, Methyl methacrylate, Vinyl acetate, Trichlorethylene	8.4E-3 each	2.1E-2 each
Regulated Pollutants other than	Potential Emissions	
Criteria and HAP	PPH	TPY
Ozone Depleting Chemical	0.0031	0.0011
List the method(s) used to calculate		es of any stack tests conducted,
versions of software used, source an	d dates of emission factors, etc.).	
Engineering estimate		

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit? YesNo
If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form					
Emission Unit Description					
Emission unit ID number:	<b>Emission unit name:</b>	List any control devices associated			
R022S-213A	PK4 REACTOR VENT	with this emission t	init: NONE		
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc	.):		
PK4 REACTOR/MIXED FEED TANK EF	PID: R022ECPV				
Manufacturer:	Model number:	Serial number:			
DUPONT	NA	NA			
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)		
/ / 1974	/ / 1974	/ / ; / / ;			
Design Capacity (examples: furnace	s - tons/hr, tanks - gallons):				
BATCH PROCESS - 1 LITER IDLED AWAI	TING BUSINESS NEED SNCE 2007				
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:			
2HR/BATCH	1400 BATCHES WHEN IN SERVICE	1400 BATCHES/YEAR			
Fuel Usage Data (fill out all applical	ole fields)	1			
Does this emission unit combust fuel?YesYesYo If yes, is it?					
		Indirect Fired	Direct Fired		
Maximum design heat input and/or maximum horsepower rating:  Type and Btu/hr rating of burners:			ating of burners:		
NA NA					
List the primary fuel type(s) and if a the maximum hourly and annual fue		). For each fuel type	listed, provide		
NA					
Describe each fuel expected to be used during the term of the permit.					
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value		

Emissions Data		
Criteria Pollutants	Potential Emissions	
	РРН	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>X</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	0.08	0.056
Hazardous Air Pollutants	Pe	otential Emissions
	PPH	TPY
HYDROGEN CHLORIDE	0.000016	0.0000011
Regulated Pollutants other than	Pe	otential Emissions
Criteria and HAP	PPH	TPY
List the method(s) used to calculate	the potential emissions (includ	e dates of any stack tests conducted,
versions of software used, source and	d dates of emission factors, etc	e.).
ENGINEERING ESTIMATE		

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
M. D. Sellett
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit?YesNo
If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control devices associated	
R022S-213B	PK#4 Reactor #4 Vent	with this emission u	init: none
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc	.):
PK #4 Reactor Vent EP ID: R022EEF007	Location Cell 8		
Manufacturer:	Model number:	Serial number:	
Custom made by DuPont	NA	NA	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1974	/ / 1974	/ / ; / / ;	
Design Capacity (examples: furnace	s - tons/hr, tanks - gallons):		
Batch Process-1 Liter Idled awaiting Busin	ess need since 2007		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operati	ng Schedule:
Fuel Usage Data (fill out all applical	le fields)		
Does this emission unit combust fuel?Yes No If yes, is it?			
		Indirect Fired	Direct Fired
Maximum design heat input and/or maximum horsepower rating:  Type and Btu/hr rat		ating of burners:	
List the primary fuel type(s) and if a the maximum hourly and annual fue		). For each fuel type	listed, provide
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data				
Criteria Pollutants	Potential Emissions			
	РРН	TPY		
Carbon Monoxide (CO)				
Nitrogen Oxides (NO <sub>X</sub> )				
Lead (Pb)				
Particulate Matter (PM <sub>2.5</sub> )				
Particulate Matter (PM <sub>10</sub> )				
Total Particulate Matter (TSP)				
Sulfur Dioxide (SO <sub>2</sub> )				
Volatile Organic Compounds (VOC)	2.3	0.79		
Hazardous Air Pollutants	Potential Emissions			
	PPH	TPY		
Hydrogen Chloride	0.00008	0.00003		
Acetonitrile	0.00008	0.000023		
Methanol	0.1	0.035		
Regulated Pollutants other than	Potential Emissions			
Criteria and HAP	PPH	TPY		
ozone depleting chemical	0.31	0.022		
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).				
Engineering Estimate				

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
<u>✓</u> Permit Shield
Permit Shield  For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)  Monitoring shall be by performing a visible emissions check on the stack once per month.
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)  Monitoring shall be by performing a visible emissions check on the stack once per month.  The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)  Monitoring shall be by performing a visible emissions check on the stack once per month.  The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.  The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)  Monitoring shall be by performing a visible emissions check on the stack once per month.  The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.  The unit count of Laboratory Tests or the Pounds of production will be recorded each month.  Monthly maintenance records will be kept.
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)  Monitoring shall be by performing a visible emissions check on the stack once per month.  The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.  The unit count of Laboratory Tests or the Pounds of production will be recorded each month.  Monthly maintenance records will be kept.
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)  Monitoring shall be by performing a visible emissions check on the stack once per month.  The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.  The unit count of Laboratory Tests or the Pounds of production will be recorded each month.  Monthly maintenance records will be kept.
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)  Monitoring shall be by performing a visible emissions check on the stack once per month.  The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.  The unit count of Laboratory Tests or the Pounds of production will be recorded each month.  Monthly maintenance records will be kept.
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)  Monitoring shall be by performing a visible emissions check on the stack once per month.  The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.  The unit count of Laboratory Tests or the Pounds of production will be recorded each month.  Monthly maintenance records will be kept.
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)  Monitoring shall be by performing a visible emissions check on the stack once per month.  The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.  The unit count of Laboratory Tests or the Pounds of production will be recorded each month.  Monthly maintenance records will be kept.
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)  Monitoring shall be by performing a visible emissions check on the stack once per month.  The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.  The unit count of Laboratory Tests or the Pounds of production will be recorded each month.  Monthly maintenance records will be kept.

Page \_\_\_\_\_ of \_\_\_\_

Are you in compliance with all applicable requirements for this emission unit? Yes \_\_\_\_No

ATTACHMENT E - Emission Unit Form  Emission Unit Description					
R022S-214A	PK5 Reactor Mixer #5 Vent				
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	.):		
PK5 Reactor/Mixer #5 Vent EP ID: R022EI	PK5 Location Cell 7 (SW)				
Manufacturer:	Model number:	Serial number:			
Custom made by DuPont	NA	NA			
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s): (MM/DD/YYYY)			
/ / 1985	/ / 1985	/ / ; / / ;			
Design Capacity (examples: furnace	es - tons/hr, tanks - gallons):				
1 HR/Batch- 1 Gallon					
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:			
1 HR Batch	700 hrs/yr 700 batches/yr	700 hr/yr			
Fuel Usage Data (fill out all applical	ble fields)				
Does this emission unit combust fuel?Yes No		If yes, is it?			
		Indirect FiredDirect Fired			
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:			
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide					
the maximum hourly and annual fu	el usage for each.				
Describe each fuel expected to be used during the term of the permit.					
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value		

-	
PPH	TPY
NA	NA
1.25	0.472
Potential Emissions	
PPH	TPY
3.8E-6	1.4E-6
0.25	0.088
5.3E-5	1.9E-5
0.2	0.069
Potential Emissions	
PPH	TPY
0.053	0.019
	NA NA NA NA NA NA 1.25 PPH 3.8E-6 0.25 5.3E-5 0.2

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering Estimate

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
✓ Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit?  YesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control devices associat	
R022S-214B	PK5 Reactor/Mixer #5 Evacuation Vent	with this emission u	init: none
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc	.):
PK5 Reactor/Mixer #5 Evacuation Vent El	PID: R022EPVJ Location: Cell 7		
Manufacturer:	Model number:	Serial number:	
Custom Made by DuPont	NA	NA	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1988	/ / 1988	/ / ; / / ;	
<b>Design Capacity (examples: furnace</b> 1 hr/batch - 1 gallon	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
1 batch/hr	700 hrs/yr 700 batches/yr	700 hr/yr	
Fuel Usage Data (fill out all applicate	ble fields)		
Does this emission unit combust fue	<b>!?</b> Yes _ <b>✓</b> No	If yes, is it?	
		Indirect FiredDirect Fired	
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr rating of burners:	
_			
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

TPY	
Potential Emissions	
TPY	
8	
3	
Potential Emissions	
TPY	
4	
- - -	

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering Estmate

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
<u>✓</u> Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit?YesNo
If no, complete the Schedule of Compliance Form as ATTACHMENT F.
n no, complete the Schedule of Comphance Form as ATTACHWENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control de with this emission t	
R0225-215	Overi	none	
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	·.):
Berringer Oven EP ID: R022EEF089 Loc	ation: West SW		
Manufacturer:	Model number:	Serial number:	
Berringer	Mini J	MJ530	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
1992 / /	1992 / /	/ / ; / / ;	
Design Capacity (examples: furnace 2hr/batch This oven is used as needed thro			
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
2hr/batch	208 batches/yr	208 batches/yr	
Fuel Usage Data (fill out all applica	ble fields)		
Does this emission unit combust fue	<b>!?</b> Yes _ <b>✓</b> No	If yes, is it?	
		Indirect FiredDirect Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
JF-			
<u> </u>	I.	1	1

Emissions Data			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)	0.028	0.0015	
Nitrogen Oxides (NO <sub>X</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )	6.6E-4	7.0E-5	
Total Particulate Matter (TSP)	6.6E-4	7.0E-5	
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	0.063	0.0033	
Hazardous Air Pollutants	Potentia	1 Emissions	
	PPH	TPY	
HYDROGEN FLUORIDE	0.016	0.0008	
Regulated Pollutants other than	Potential Emissions		
Criteria and HAP	PPH	TPY	
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).			
ENGINEERING ESTIMATE			

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
M. D. Waltin
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit?No
If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control de	
R022S-232A	Ross Mixer	with this emission u	init:
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc	.):
Ross Mixer West Semi-Works AKA SAP Ur	nit.(Solvent Aided Pelletization) EP ID: R02:	2EEF089	
Manufacturer:	Model number:	Serial number:	
Ross	NA	5166	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1985	/ / 1985	/ / ; / / ;	
Design Capacity (examples: furnace 15 minute/batch Used as needed to meet be			
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
4 batches/hr	62.5 hr/yr	62.5 hr/yr	
Fuel Usage Data (fill out all applical	ble fields)		
Does this emission unit combust fue	<b>!?</b> Yes _ <b>✓</b> No	If yes, is it?	
		Indirect FiredDirect Fired	
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data			
Criteria Pollutants	Potential Emissions		
	РРН	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>X</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	0.66	0.087	
Hazardous Air Pollutants	Potentia	al Emissions	
	PPH	TPY	
Regulated Pollutants other than	Potential Emissions		
Criteria and HAP	PPH	TPY	
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).			
Engineering estimate			

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
<u>✓</u> Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit?  YesNo

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control de	
R022S-232B	Ross Mixer Vent	with this emission u	ınit:
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc	.):
Ross (SAP) Mixer Evacuation Vent: West S	emi-Works: EP ID: R022EEVJ		
Manufacturer:	Model number:	Serial number:	
Ross	NA	5166	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1985	/ / 1985	/ / ; / / ;	
Design Capacity (examples: furnace	es - tons/hr, tanks - gallons):		
0.25 hrs/batch - Used as needed during the	year to meet business need		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
4 batch/hr	62.5 hrs/yr 250 batches/yr	62.5hr/yr	
Fuel Usage Data (fill out all applical	ble fields)		
Does this emission unit combust fuel?Yes No If yes, is it?			
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>X</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	0.66	0.082
Hazardous Air Pollutants	Potent	ial Emissions
	PPH	TPY
Regulated Pollutants other than	Potent	ial Emissions
Criteria and HAP	PPH	TPY
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).		
Engineering Estimate		

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
<u>✓</u> Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit?  YesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control devices associated with this emission unit:	
R022S-233A	DRYING OVEN	NONE	
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc	.):
GRIEVE DRYING OVEN EP ID R022EEF0	006; LOCATION: EAST SW		
Manufacturer:	Model number:	Serial number:	
GRIEVE	HA850	470042	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1985	/ / 1985	/ / ; / / ;	
Design Capacity (examples: furnace BATCH PROCESS	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
72HR	122 BATCHES	8760 HR/YR	
Fuel Usage Data (fill out all applical	ole fields)		
Does this emission unit combust fue	1?Yes No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or maximum horsepower rating:  Type and Btu/hr rating of burners:			ting of burners:
NA NA			
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
NA			
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>X</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )	0.0084	0.006
Total Particulate Matter (TSP)	0.0084	0.006
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potent	ial Emissions
	PPH	TPY
Regulated Pollutants other than	Potent	ial Emissions
Criteria and HAP	РРН	TPY
List the method(s) used to calculate to versions of software used, source and		tes of any stack tests conducted,
versions of software used, source and	d dates of emission factors, etc.).	
ENGINEERING ESTIMATE		

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
<u>✓</u> Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit? <u>Y</u> YesNo
If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission unit name:	List any control devices associated		
Oven	with this emission u	ınit:	
n unit (type, method of operation, d	esign parameters, etc	·.):	
location: West Semi-Works			
Model number:	Serial number:		
212570-14	na		
Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)	
/ / 1964			
s - tons/hr, tanks - gallons):			
Maximum Annual Throughput:	Maximum Operating Schedule:		
122 batches/yr	8760 hrs/yr		
ble fields)			
<b>!?</b> Yes _ <b>✓</b> No	If yes, is it?		
	Indirect Fired	Direct Fired	
maximum horsepower rating:	Type and Btu/hr ra	nting of burners:	
applicable, the secondary fuel type(s el usage for each.	). For each fuel type	listed, provide	
ed during the term of the permit.			
Max. Sulfur Content	Max. Ash Content	BTU Value	
	Emission unit name: Oven  unit (type, method of operation, decation: West Semi-Works  Model number: 212570-14  Installation date: (MM/DD/YYYY) / / 1964  s - tons/hr, tanks - gallons):  Maximum Annual Throughput: 122 batches/yr  ble fields)  1?Yes No  maximum horsepower rating:  applicable, the secondary fuel type(seel usage for each.	Emission unit name: Oven  List any control de with this emission unit (type, method of operation, design parameters, etc.)  Iocation: West Semi-Works  Model number: 212570-14  Installation date: (MM/DD/YYYY)  / / 1964  Installation date: (MM/DD/YYYY)  Modification date(strictly)  s - tons/hr, tanks - gallons):  Maximum Annual Throughput: 122 batches/yr  Maximum Operation  8760 hrs/yr  Die fields)  Program Yes No If yes, is it?  Indirect Fired  Type and Btu/hr raupplicable, the secondary fuel type(s). For each fuel type el usage for each.	

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>X</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )	0.000042	0.0003
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potenti	al Emissions
	PPH	TPY
Regulated Pollutants other than	Potenti	al Emissions
Criteria and HAP	PPH	TPY
List the method(s) used to calculate versions of software used, source an		es of any stack tests conducted,
Engineering estimate.		

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit?  YesNo

If no, complete the Schedule of Compliance Form as ATTACHMENT  ${\bf F}$ .

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control de	
R022S-234	Hydraulic Press	with this emission t	ınit:
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc	.):
Hydraulic Press Exhaust Hood EP ID: R022	PEEF006 Location: East Semi-Works		
Manufacturer:	Model number:	Serial number:	
#4 PHI #5 PHI #6 PHI #7 PHI	P210G-X4B-21, SP2100-X4A-21, P2100	92-9-003, 91-1015, 14-	3-001, 14-3-002
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	): (MM/DD/YYYY)
1964-2020 /	/ / 1964-2020	/ / ; / / ;	
Design Capacity (examples: furnace Batch Process 0.35pph	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
1.7hr/batch	2500 batches	4167 hrs/yr	
Fuel Usage Data (fill out all applical	ble fields)		
Does this emission unit combust fue	!?Yes No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	ting of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fu		. For each fuel type	listed, provide
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data			
Criteria Pollutants	Potential Emissions		
	РРН	TPY	
Carbon Monoxide (CO)	1.5E-5	0.0012	
Nitrogen Oxides (NO <sub>X</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )	3.75E-05	3.9E-05	
Total Particulate Matter (TSP)	0.0084	0.006	
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	0.0016	0.0017	
Hazardous Air Pollutants	Potentia	al Emissions	
	РРН	TPY	
Hydrogen Chloride	0.0002	0.00021	
Hydrogen Fluoride	0.0004	0.00042	
Regulated Pollutants other than	Potentia	al Emissions	
Criteria and HAP	PPH	TPY	
TiCl14	4.4E-09	4.6E-09	
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).			
Engineering Estimate.			

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
✓ Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit?  YesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control devices associated	
R022S-235	Haake Mixer	with this emission ι	init: None
Provide a description of the emission unit (type, method of operation, design parameters, etc.):			
Haake Mixer EP ID: R022EEF006 Loca	tion: Semiworks East		
Manufacturer:	Model number:	Serial number:	
haake	RC300P	1200000419/003	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1996	/ / 1996	/ / ; / / ;	
Design Capacity (examples: furnace Batch Process	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
6 hr/batch	1000 batches	6000 hrs/yr	
Fuel Usage Data (fill out all applical	ole fields)		
Does this emission unit combust fue	!?Yes _ <b></b> No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	iting of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data				
Criteria Pollutants	Potential Emissions			
	РРН	TPY		
Carbon Monoxide (CO)	2.3E-5	1.2E-5		
Nitrogen Oxides (NO <sub>X</sub> )	NA	NA		
Lead (Pb)	NA	NA		
Particulate Matter (PM <sub>2.5</sub> )	NA	NA		
Particulate Matter (PM <sub>10</sub> )	5.6E-5	2.8E-5		
Total Particulate Matter (TSP)	0.0084	0.006		
Sulfur Dioxide (SO <sub>2</sub> )	NA	NA		
Volatile Organic Compounds (VOC)	0.0016	0.0017		
Hazardous Air Pollutants	Potential Emissions			
	РРН	TPY		
Hydrochloric Acid	0.0003	0.00015		
Hydrofluoric Acid	0.0006	0.0003		
Regulated Pollutants other than	Potential Emissions			
Criteria and HAP	PPH	TPY		
TiCl4	6.6E-9	3.3E-9		
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).				
Engineering Estimate				
gsg _5d.c				

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit?  YesNo

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form					
Emission Unit Description					
Emission unit ID number:	Emission unit name:	List any control devices associated			
R022S-236	Oven	with this emission t	ınit: None		
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	.):		
Grieve Oven, EP ID: R022EEF006					
Manufacturer:	Model number:	Serial number:			
Custom made	NA	NA			
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s): (MM/DD/YYYY)			
/ / 1973	/ / 1973	/ / ; / / ;			
Design Capacity (examples: furnace Batch process - 0.05 pph	es - tons/hr, tanks - gallons):				
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:			
1 hr/batch	250 batches	250 hrs/yr			
Fuel Usage Data (fill out all applicate	ble fields)				
Does this emission unit combust fuel?Yes No		If yes, is it?			
		Indirect FiredDirect Fired			
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:			
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide		
Describe each fuel expected to be us	ed during the term of the permit.				
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value		

Emissions Data			
Criteria Pollutants	Potential Emissions		
	РРН	TPY	
Carbon Monoxide (CO)	2.6E-7	2.6E-7	
Nitrogen Oxides (NO <sub>X</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )	6.2E-7	6.5E-7	
Total Particulate Matter (TSP)	6.2E-7	6.5E-7	
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	2.6E-5	2.6E-5	
Hazardous Air Pollutants	Potentia	al Emissions	
	РРН	TPY	
Hydrochloric acid	3.3E-6	3.3E-6	
Hydrofluoric acid	6.6E-6	6.5E-6	
Regulated Pollutants other than	Potential Emissions		
Criteria and HAP	PPH	TPY	
TiCl4	7.3E-11	7.5E-11	
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).			
Engineering estimate			

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
Monitoring shall be by performing a visible emissions check on the stack once per month.
The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22.
The unit count of Laboratory Tests or the Pounds of production will be recorded each month.
Monthly maintenance records will be kept.
All records of checks will be kept for five years
Are you in compliance with all applicable requirements for this emission unit?YesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATTACHMENT E - Emission Unit Form				
Emission Unit Description				
Emission unit ID number:	Emission unit name:	List any control devices associated with this emission unit:		
R022S-237	Fume Hood (solutions)			
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc	.):	
Fume Hood, EP ID: R022EEF011 Location	n: SW east			
Manufacturer:	Model number:	Serial number:		
GE	SK182H6268	NA		
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)	
/ / 1964	/ / 1964	/ / ; / / ;		
Design Capacity (examples: furnace Batch process	es - tons/hr, tanks - gallons):			
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:		
4 hr/batch	700 batches	175 hrs/yr		
Fuel Usage Data (fill out all applicable fields)				
Does this emission unit combust fuel?Yes No If yes, is it?				
		Indirect FiredDirect Fired		
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr ra	iting of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.				
Describe each fuel expected to be used during the term of the permit.				
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value	

Emissions Data			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>X</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	2.1	0.79	
Hazardous Air Pollutants	Pote	ential Emissions	
	PPH	TPY	
Methanol	0.01	0.0035	
Regulated Pollutants other than	Potential Emissions		
Criteria and HAP	PPH	TPY	
ozone depleting chemical	2.1	0.17	
List the method(s) used to calculate			
versions of software used, source an	a dates of emission factors, etc.).		
Engineering estimate			

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.
THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.
THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.
MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH
ALL RECORDS WILL BE KEPT FOR FIVE YEARS.
Are you in compliance with all applicable requirements for this emission unit? V Yes No

If no, complete the  $\pmb{Schedule}$  of  $\pmb{Compliance}$  Form as  $\pmb{ATTACHMENT}$  F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control dev	
R022S-238	Sinter Oven	with this emission u	mit:
Provide a description of the emission	n unit (type, method of operation, do	esign parameters, etc.	.):
Exhaust Hood Sinter Oven EP ID: R022EEI	F146 Location: East Semi-Works		
Manufacturer:	Model number:	Serial number:	
BUFLO-FG	365BL1	S129710000001	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	): (MM/DD/YYYY)
/ / 1964	/ / 1964	/ / ; / / ;	
Design Capacity (examples: furnace	s - tons/hr, tanks - gallons):		
0.5 hr/batch Sintering oven only			
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operation	ng Schedule:
0.5 batch/hr	7500 hrs/yr 15,000 batches/yr	7500hrs/yr	
Fuel Usage Data (fill out all applical	ole fields)		
Does this emission unit combust fuel?Yes No		If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr ra	ting of burners:
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data				
Criteria Pollutants	Potential Emissions			
	РРН	TPY		
Carbon Monoxide (CO)	2.6E-5	7.0E-6		
Nitrogen Oxides (NO <sub>X</sub> )				
Lead (Pb)				
Particulate Matter (PM <sub>2.5</sub> )				
Particulate Matter (PM <sub>10</sub> )	6.4E-5	1.8E5		
Total Particulate Matter (TSP)	6.4E-5	1.8E5		
Sulfur Dioxide (SO <sub>2</sub> )				
Volatile Organic Compounds (VOC)	0.027	0.00073		
Hazardous Air Pollutants	Potentia	al Emissions		
	РРН	TPY		
ODC	7.5E9	2.1E-9		
Hydrogen Fluoride	6.8E-4	1.9E-4		
Hydrogen Chloride	3.4E-4	9.4E-5		
Regulated Pollutants other than	Potential Emissions			
Criteria and HAP	РРН	TPY		
TiCl4	7.5E-9	2.1E-9		
List the method(s) used to calculate		es of any stack tests conducted,		
versions of software used, source and	d dates of emission factors, etc.).			
Engineering estimate				

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
✓ Permit Shield
I CHIRL SHOR
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.
THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.
THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.
MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH
ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

Are you in compliance with all applicable requirements for this emission unit? Yes \_\_\_No

ATTACHMENT E - Emission Unit Form				
Emission Unit Description				
Emission unit ID number:	Emission unit name: Extruder (28mm)	List any control de with this emission u None		
Provide a description of the emission unit (type, method of operation, design parameters, etc.):  Small Extruder Vent, EP ID: R0EEF086 Location: SW West,				
Manufacturer:	Model number:	Serial number:		
WERNER-PFLEIDERER	NA	150047		
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)	
/ / 1974	/ / 1974	/ / ; / / ;		
<b>Design Capacity (examples: furnace</b> 5 hr/day- 10pph Extruder operates only fo				
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:		
5 hr/day	800 hrs/yr	800 hrs/yr		
Fuel Usage Data (fill out all applical	ble fields)			
Does this emission unit combust fue	<b>!?</b> Yes _ <b>✓</b> No	If yes, is it?		
		Indirect Fired	Indirect FiredDirect Fired	
Maximum design heat input and/or maximum horsepower rating:  Type and Btu/hr rating of bur			ting of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.				
Describe each fuel expected to be used during the term of the permit.				
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value	
<del></del>	•	•		

Emissions Data		
Criteria Pollutants	Potential Emissions	
	РРН	TPY
Carbon Monoxide (CO)	4.6E-4	1.9E-4
Nitrogen Oxides (NO <sub>X</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )	0.012	0.0005
Total Particulate Matter (TSP)	0.012	0.0005
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	0.046	0.019
Hazardous Air Pollutants	Potentia	al Emissions
	РРН	TPY
Hydrogen Chloride	0.006	0.0025
Hydrogen Fluoride	0.12	0.005
Regulated Pollutants other than	Potential Emissions	
Criteria and HAP	РРН	TPY
TiCl4	1.4E-7	6.0E-8
List the method(s) used to calculate a versions of software used, source and	the potential emissions (include dated dates of emission factors, etc.).	es of any stack tests conducted,
Engineering estimate		

Appl	licabi	le R	equir	rements
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List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

## Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

Are you in compliance with all applicable requirements for this emission unit? Ves \_\_\_No

Page	of	'

ATT	ACHMENT E - Emission Uni	t Form	
Emission Unit Description			
Emission unit ID number:	Emission unit name:  Extruder (53mm)	List any control devices associated with this emission unit:  None	
Provide a description of the emission  Large Extruder Vent, EP ID: R022EEF	-	esign parameters, etc	.):
Manufacturer:	Model number:	Serial number:	
WERNER-PFLEIDERER CORP.	ZSK53L	3734	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1976	/ / 1976	/ / ; / / ;	
Design Capacity (examples: furnace 6 hr/day - 500pph	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
5 hr/day	1560 hrs/yr	1560 hrs/yr	
Fuel Usage Data (fill out all applical	ble fields)		
Does this emission unit combust fue	1?Yes No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	iting of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
	l	L	l

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.023	0.0182
Nitrogen Oxides (NO <sub>X</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )	0.056	0.044
Total Particulate Matter (TSP)	0.056	0.044
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	2.31	1.81
Hazardous Air Pollutants	Potenti	al Emissions
	PPH	TPY
Hydrochloric Acid	0.3	0.234
Hydrofluoric acid	0.6	0.47
Regulated Pollutants other than	Potential Emissions	
Criteria and HAP	PPH	TPY
TiCl4	6.6E-6	5.0E-6
List the method(s) used to calculate versions of software used, source an		es of any stack tests conducted,
Engineering estimate		

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.
THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.
THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.
MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH
ALL RECORDS WILL BE KEPT FOR FIVE YEARS.
Are you in compliance with all applicable requirements for this emission unit?  YesNo
If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control devices associated	
R022S-240B	Large Vent Hood	with this emission ι	ınit: None
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc	.):
Location: SW West, EP ID: R022EEF0	089		
Manufacturer:	Model number:	Serial number:	
WERNER-PFLEIDERER	ESA120	180017	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1976	/ / 1976	/ / ; / / ;	
Design Capacity (examples: furnace 500PPH	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
0.17 batches/hr	1560 hrs/yr	1560 hrs/yr	
Fuel Usage Data (fill out all applical	ble fields)		
Does this emission unit combust fue	!?Yes No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or maximum horsepower rating:  Type and Btu/hr rating of burne		ting of burners:	
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	РРН	TPY
Carbon Monoxide (CO)	0.023	0.018
Nitrogen Oxides (NO <sub>X</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )	0.0560	0.044
Total Particulate Matter (TSP)	0.056	0.044
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	2.31	1.81
Hazardous Air Pollutants	Potentia	al Emissions
	РРН	TPY
Hydrogen Fluoride	0.6	0.47
Hydrogen Chloride	0.3	0.234
Regulated Pollutants other than	Potential Emissions	
Criteria and HAP	РРН	TPY
TiCl4	6.6E-6	5.0E-6
List the method(s) used to calculate versions of software used, source and		es of any stack tests conducted,
,	, ,	
Engineering estimate		

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
Permit Shield  For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.
THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.
THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.
MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH
ALL RECORDS WILL BE KEPT FOR FIVE YEARS.
Are you in compliance with all applicable requirements for this emission unit? YesNo
If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number: R022S-240C	Emission unit name: Feed Hopper	List any control devices associated with this emission unit:  None	
Provide a description of the emission Feed Hopper, EP ID: R022EEF085 Locati		esign parameters, etc	:.):
Manufacturer:	Model number:	Serial number:	
Custon made by DuPont	NA	NA	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1988	/ / 1988	/ / ; / / ;	
Design Capacity (examples: furnace Batch process	es - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
2 hr/batch	350 Batches	780 hrs/yr	
Fuel Usage Data (fill out all applical	ble fields)	,	
Does this emission unit combust fue	<b>!?</b> Yes _ <b>✓</b> No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	nting of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data			
Criteria Pollutants	Potential Emissions		
	РРН	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>X</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )	0.1	0.078	
Total Particulate Matter (TSP)	0.1	0.078	
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
Hazardous Air Pollutants	Potentia	al Emissions	
	PPH	TPY	
Regulated Pollutants other than	Potential Emissions		
Criteria and HAP	PPH	TPY	
List the method(s) used to calculate to versions of software used, source and		es of any stack tests conducted,	
Engineering estimate			

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title $V$ permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Monitoring shall be by performing a visible emissions check on the stack once per month, not to exceed 45 days. The visible emission check will be made by a person trained in 40 CFR 60, Appendix A, Method 22. Production records will be monitored and recordedmonthly. Maintenance and repairs will be monitored and recorded monthly. All records of checks will be kept for five years.

Are you in compliance with all applicable requirements for this emission unit? Yes \_\_\_No

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control devices associated with this emission unit: NONE	
R022S-242	COOLANT SYSTEM #1		
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	·.):
COOLANT SYSTEM #1 EP ID: R022EEF	016		
		1	
Manufacturer:	Model number:	Serial number:	
DUPONT	NA	NA	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1988	/ / 1988	/ / ; / / ;	
Design Capacity (examples: furnace	es - tons/hr, tanks - gallons):	, , ,	
BATCH PROCESS - 8 GALLON			
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
1HR/BATCH	10 BATCHES	10HRS/YR	
Fuel Usage Data (fill out all applicate	ble fields)		
Does this emission unit combust fue	!?Yes <u>✓</u> No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	ating of burners:
NA NA		NA	
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
NA			
Describe each fuel expected to be us	ed during the term of the permit.	1	T
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data				
Criteria Pollutants	Potential Emissions			
	РРН	TPY		
Carbon Monoxide (CO)				
Nitrogen Oxides (NO <sub>X</sub> )				
Lead (Pb)				
Particulate Matter (PM <sub>2.5</sub> )				
Particulate Matter (PM <sub>10</sub> )				
Total Particulate Matter (TSP)				
Sulfur Dioxide (SO <sub>2</sub> )				
Volatile Organic Compounds (VOC)	6.0E-6	3.0E-8		
Hazardous Air Pollutants	Potentia	ll Emissions		
	РРН	TPY		
ETHYLENE GLYCOL	6.0E-6	3.0E-8		
Regulated Pollutants other than	Potentia	ll Emissions		
Criteria and HAP	PPH	TPY		
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).				
ENGINEERING ESTIMATE				

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
✓ Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
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be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)  MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.
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ATTACHMENT E - Emission Unit Form						
Emission Unit Description						
Emission unit ID number:	<b>Emission unit name:</b>	List any control devices associated with this emission unit: NONE				
R022S-243	COOLANT SYSTEM #2					
Provide a description of the emission unit (type, method of operation, design parameters, etc.):						
COOLANT SYSTEM #2 EP ID: R022EEF014						
Manufacturer:	Model number:	Serial number:				
DUPONT	NA	NA				
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)			
/ / 1996	/ / 1996	/ / ; / / ;				
Design Capacity (examples: furnaces - tons/hr, tanks - gallons):  BATCH PROCESS - 10 GALLON						
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:				
1HR/BATCH	10 BATCHES	10HRS/YR				
Fuel Usage Data (fill out all applical	ole fields)					
Does this emission unit combust fuel?Yes No		If yes, is it?				
		Indirect FiredDirect Fired				
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:				
NA		NA				
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.						
NA						
Describe each fuel expected to be used during the term of the permit.						
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value			

Emissions Data					
Criteria Pollutants	Potential Emissions				
	PPH	TPY			
Carbon Monoxide (CO)					
Nitrogen Oxides (NO <sub>X</sub> )					
Lead (Pb)					
Particulate Matter (PM <sub>2.5</sub> )					
Particulate Matter (PM <sub>10</sub> )					
Total Particulate Matter (TSP)					
Sulfur Dioxide (SO <sub>2</sub> )					
Volatile Organic Compounds (VOC)	7.6E-6	3.8E-8			
Hazardous Air Pollutants	Potential Emissions				
	PPH	TPY			
ETHYLENE GLYCOL	7.6E-6	3.8E-8			
Regulated Pollutants other than	Potenti	ial Emissions			
Criteria and HAP	PPH	TPY			
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).					
ENGINEERING ESTIMATE					

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. ( <i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i> ). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
✓ Permit Shield
Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating
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Are you in compliance with all applicable requirements for this emission unit? Yes \_\_\_No

ATTACHMENT E - Emission Unit Form						
Emission Unit Description						
Emission unit ID number:	Emission unit name:	List any control devices associated with this emission unit: NONE				
R022S-244	COOLANT SYSTEM #3					
Provide a description of the emission unit (type, method of operation, design parameters, etc.):						
COOLANT SYSTEM #3 EP ID: R022EEF007						
Manufacturer:	Model number:	Serial number:				
DUPONT	NA	NA				
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	): (MM/DD/YYYY)			
/ / 1985	/ / 1985	/ / ; / / ;				
Design Capacity (examples: furnaces - tons/hr, tanks - gallons):  BATCH PROCESS - 30 GALLON						
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:				
1 HR/BATCH	10 BATCHES	10 HRS/YR				
Fuel Usage Data (fill out all applical	ble fields)					
Does this emission unit combust fuel?Yes No		If yes, is it?				
		Indirect Fired	Direct Fired			
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr ra	ting of burners:			
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.						
Describe each fuel expected to be used during the term of the permit.						
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value			

Emissions Data			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>X</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	2.4E-5	1.2E-7	
Hazardous Air Pollutants	P	otential Emissions	
	РРН	TPY	
ETHYLENE GLYCOL	2.4E-5	1.2E-7	
Regulated Pollutants other than	Potential Emissions		
Criteria and HAP	PPH	TPY	
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).			
ENGINEERING ESTIMATE			

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
✓ Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.
THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.
THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.
MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH
ALL RECORDS WILL BE KEPT FOR FIVE YEARS.
Are you in compliance with all applicable requirements for this emission unit? <u>V</u> YesNo

ATTACHMENT E - Emission Unit Form					
Emission Unit Description	Emission Unit Description				
Emission unit ID number:	Emission unit name:	List any control de			
R022S-247	Line Vent	with this emission t	init: none		
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	.):		
Monomer transfer line vent EP ID: R022E	CPV Location North of B22				
Manufacturer:	Model number:	Serial number:			
Custom made by DuPont	NA	NA			
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)		
/ / 2002	/ / 2002	/ / ; / / ;			
Design Capacity (examples: furnace Batch Process- 4 gallons	s - tons/hr, tanks - gallons):				
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:			
1 hr/batch	1500 batches	1500 batches/year			
Fuel Usage Data (fill out all applicate	ble fields)				
Does this emission unit combust fue	<b>!?</b> Yes _ <b>✓</b> No	If yes, is it?			
		Indirect Fired	Direct Fired		
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr rating of burners:			
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide		
Describe each fuel expected to be us	ed during the term of the permit.				
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value		

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	NA	NA
Nitrogen Oxides (NO <sub>X</sub> )	NA	NA
Lead (Pb)	NA	NA
Particulate Matter (PM <sub>2.5</sub> )	NA	NA
Particulate Matter (PM <sub>10</sub> )	NA	NA
Total Particulate Matter (TSP)	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	NA	NA
Volatile Organic Compounds (VOC)	0.88	0.66
Hazardous Air Pollutants	Potentia	l Emissions
	PPH	TPY
Regulated Pollutants other than	Potentia	l Emissions
Criteria and HAP	PPH	TPY
List the method(s) used to calculate a versions of software used, source and		s of any stack tests conducted,
, or		
Engineering Estimate		

$App_{i}$	licabi	le R	equir	rements
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List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

## Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

Are you in compliance with all applicable requirements for this emission unit?	Yes_Yes	No

Page	of	'

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control de	
R022S-B05	Exhaust Hood	with this emission u	init: None
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	.):
Exhaust Vent (EF051) EP ID: R022E-F51	Location Lab 114		
Manufacturer:	Model number:	Serial number:	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1950	/ / 1950	/ / ; / / ;	
<b>Design Capacity (examples: furnace</b> 2815 ACFM	es - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
2815 ACFM, 12,920 PPH	56,593 TONS/YR	8760 HR/YR	
Fuel Usage Data (fill out all applical	ble fields)		
Does this emission unit combust fue	!?Yes	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr ra	ting of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be us	ed during the term of the permit.		ı
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	NA	NA
Nitrogen Oxides (NO <sub>X</sub> )	NA	NA
Lead (Pb)	NA	NA
Particulate Matter (PM <sub>2.5</sub> )	NA	NA
Particulate Matter (PM <sub>10</sub> )	NA	NA
Total Particulate Matter (TSP)	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	NA	NA
Volatile Organic Compounds (VOC)	4.5X10^7	0.000002
Hazardous Air Pollutants	Potentia	l Emissions
	PPH	TPY
Regulated Pollutants other than	Potentia	1 Emissions
Criteria and HAP	PPH	TPY
List the method(s) used to calculate to versions of software used, source and		s of any stack tests conducted,
, , , , , , , , , , , , , , , , , , , ,		
Engineering estimate		

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
<u>✓</u> Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.
THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.
THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.
MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH
ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control de	
R002S-B06	Exhaust Hood	with this emission u	ınit: None
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	·.):
Exhaust vent (EF-52) EP ID: R022E-F52	Location: Lab 114		
Manufacturer:	Model number:	Serial number:	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1950	/ / 1950	/ / ; / / ;	
Design Capacity (examples: furnace	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:	
2815 ACFM, 12,920 PPH	56,593 TONS/YR	8760 HR/YR	
Fuel Usage Data (fill out all applical	ble fields)		
Does this emission unit combust fue	!?Yes <u>✓</u> No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr ra	ating of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be us	ed during the term of the permit.	T	Г
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	РРН	TPY
Carbon Monoxide (CO)	NA	NA
Nitrogen Oxides (NO <sub>X</sub> )	NA	NA
Lead (Pb)	NA	NA
Particulate Matter (PM <sub>2.5</sub> )	NA	NA
Particulate Matter (PM <sub>10</sub> )	NA	NA
Total Particulate Matter (TSP)	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	NA	NA
Volatile Organic Compounds (VOC)	4.5X10^7	0.000002
Hazardous Air Pollutants	Potential Emissions	
	РРН	TPY
Regulated Pollutants other than	Potentia	l Emissions
Criteria and HAP	РРН	TPY
List the method(s) used to calculate		s of any stack tests conducted,
versions of software used, source an	d dates of emission factors, etc.).	
Engineering Estimate		
·	<del>-</del>	<u> </u>

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
See attachment list for allapplicable requirements
<u>✓</u> Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.
THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.
THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.
MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH
ALL RECORDS WILL BE KEPT FOR FIVE YEARS.
Are you in compliance with all applicable requirements for this emission unit?  YesNo
If no, complete the <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control dev	
R022S-B17	Lab 108 Exhaust Hood	with this emission unit: NONE	
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc	.):
Exhaust Vent (EF-63) EP ID: R022E-F63	Location: Lab 108 West side.		
Manufacturer:	Model number:	Serial number:	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	): (MM/DD/YYYY)
/ / 1950	/ / 1950	/ / ; / / ;	
<b>Design Capacity (examples: furnace</b> 2815 ACFM	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operation	ng Schedule:
2815 ACFM, 12,920 PPH	56,593 TONS/YR	8760 HR/YR	
Fuel Usage Data (fill out all applicat	ole fields)	1	
Does this emission unit combust fuel	!?Yes _ <b>_′</b> No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	ting of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fue		). For each fuel type	listed, provide
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	РРН	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>X</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	4.5X10^7	0.000002
Hazardous Air Pollutants	Hazardous Air Pollutants Potential Emissions	
	РРН	TPY
Regulated Pollutants other than	Potenti	al Emissions
Criteria and HAP	РРН	TPY
List the method(s) used to calculate to versions of software used, source and		es of any stack tests conducted,
Engineering estimate		

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
<u>✓</u> Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
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THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.
THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.
MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH
ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

**Are you in compliance with all applicable requirements for this emission unit?** Yes \_\_\_\_No

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:  LAB 101 HOOD	List any control dewith this emission to	
10220-019	LAB TOTTIOOD	NA	
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc	.):
Exhaust Hood EF-65 EP ID: R022E-F65 L	ocation Lab 101 west side		
Manufacturer:	Model number:	Serial number:	
NA	NA	NA	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1950	/ / 1950	/ / ; / / ;	
Design Capacity (examples: furnace 2815 ACFM	s - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operation	ng Schedule:
12,990 pph	56,896 ton/yr	8760 hr/yr	
Fuel Usage Data (fill out all applical	ble fields)		
Does this emission unit combust fue	<b>!</b> ?Yes _ <b>✓</b> No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	ting of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be us	ed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	NA	NA
Nitrogen Oxides (NO <sub>X</sub> )	NA	NA
Lead (Pb)	NA	NA
Particulate Matter (PM <sub>2.5</sub> )	NA	NA
Particulate Matter (PM <sub>10</sub> )	NA	NA
Total Particulate Matter (TSP)	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	NA	NA
Volatile Organic Compounds (VOC)	NA	NA
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Methylene Chloride	0.0013	0.0055
	NA	NA
	NA	NA
	NA	NA
Regulated Pollutants other than	I	Potential Emissions
Criteria and HAP	РРН ТРҮ	
	NA	NA
	NA	NA
	NA	NA
List the method(s) used to calculate versions of software used, source an		de dates of any stack tests conducted, ic.).
Engineering estimate		

$App_{i}$	licabi	le R	equir	rements
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List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

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## Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

Are you in compliance with all applicable requirements for this emission unit? Ves \_\_\_No

Page	(	of	

ATTACHMENT E - Emission Unit Form			
Emission Unit Description			
Emission unit ID number:	Emission unit name:	List any control de	
R022S-B20 (same as 22-S-101)	Lab Hood	with this emission u	ınit:
Provide a description of the emissio	n unit (type, method of operation, d	esign parameters, etc	·.):
Location:Lab101 East Exhaust hood in Lab	101 (EF-66), EP ID: R022E-F66		
Manufacturer:	Model number:	Serial number:	
NA	NA	NA	
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)
/ / 1950	/ / 1950	/ / ; / / ;	
Design Capacity (examples: furnace 2815 ACFM	es - tons/hr, tanks - gallons):		
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operation	ng Schedule:
12,990 pph	56,896 ton/yr	8760 hr/yr	
Fuel Usage Data (fill out all applica	ble fields)		
Does this emission unit combust fue	<b>!</b> ?Yes _ <b>✓</b> No	If yes, is it?	
		Indirect Fired	Direct Fired
Maximum design heat input and/or	maximum horsepower rating:	Type and Btu/hr ra	ting of burners:
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide
Describe each fuel expected to be us	sed during the term of the permit.		
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Engineering estimate

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	NA	NA
Nitrogen Oxides (NO <sub>X</sub> )	NA	NA
Lead (Pb)	NA	NA
Particulate Matter (PM <sub>2.5</sub> )	NA	NA
Particulate Matter (PM <sub>10</sub> )	NA	NA
Total Particulate Matter (TSP)	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	NA	NA
Volatile Organic Compounds (VOC)	NA	NA
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Methylene chloride	0.0013	0.0055
	NA	NA
	NA	NA
	NA	NA
Regulated Pollutants other than		Potential Emissions
Criteria and HAP	PPH	TPY
	NA	NA
	NA	NA
	NA	NA

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
✓ Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.
THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.
THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.
MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH
ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

Page \_\_\_\_\_ of \_\_\_\_

ATTACHMENT E - Emission Unit Form				
Emission Unit Description				
Emission unit ID number:	Emission unit name:	List any control devices associated		
R022S-B36	Exhaust Hood	with this emission u	ınit:	
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc	.):	
Location: Lab 210 Exhaust Fan (EF-115) El	P ID: R022E-F115			
Manufacturer:	Model number:	Serial number:		
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)	
/ / 1985	/ / 1985	NA / / ;		
<b>Design Capacity (examples: furnace</b> 2815 ACFM	s - tons/hr, tanks - gallons):			
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operation	ng Schedule:	
2815 ACFM, 12,920 PPH	56,593 TONS/YR	8760 HR/YR		
Fuel Usage Data (fill out all applical	ole fields)			
Does this emission unit combust fuel	<b>!</b> ?Yes _ <b>_′</b> No	If yes, is it?		
Indirect FiredDirect		Direct Fired		
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr ra	ting of burners:	
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide	
Describe each fuel expected to be used during the term of the permit.				
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value	

Emissions Data			
Criteria Pollutants	Potential Emissions		
	РРН	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>X</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	0.0006	0.0026	
Hazardous Air Pollutants	Potentia	al Emissions	
	РРН	TPY	
Regulated Pollutants other than	Potential Emissions		
Criteria and HAP	РРН	TPY	
Carbon monoxide	5.67X10^-5	0.0002	
Formic acid	0.0005	0.00219	
TOC	0.0006	0.0026	
List the method(s) used to calculate versions of software used, source an Engineering estimate		s of any stack tests conducted,	

Page \_\_\_\_\_ of \_\_\_\_

Are you in compliance with all applicable requirements for this emission unit? Yes \_\_\_\_No

ATTACHMENT E - Emission Unit Form				
Emission Unit Description				
Emission unit ID number:	Emission unit name:	List any control devices associated		
R022S-B38	LAB HOOD	with this emission u	ınit:	
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	.):	
LAB 109 VENTED CABINET EP ID R022	S-F119; LOCATION: LAB 109			
Manufacturer:	Model number:	Serial number:		
BUFFALO FORGE				
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)	
/ / 1985	/ / 1985	/ / ; / / ;		
Design Capacity (examples: furnace	s - tons/hr, tanks - gallons):			
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operation	ng Schedule:	
6300 PPH	27594 TON/YR	8760 HR/YR		
Fuel Usage Data (fill out all applical	ole fields)	I		
Does this emission unit combust fue	!?Yes _ <b>_✓</b> No	If yes, is it?		
Indirect FiredDi		Direct Fired		
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr ra	ting of burners:	
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide	
Describe each fuel expected to be used during the term of the permit.				
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value	

Emissions Data				
Criteria Pollutants	Potential Emissions			
	PPH	TPY		
Carbon Monoxide (CO)				
Nitrogen Oxides (NO <sub>X</sub> )				
Lead (Pb)				
Particulate Matter (PM <sub>2.5</sub> )				
Particulate Matter (PM <sub>10</sub> )				
Total Particulate Matter (TSP)				
Sulfur Dioxide (SO <sub>2</sub> )				
Volatile Organic Compounds (VOC)				
Hazardous Air Pollutants	Pote	ential Emissions		
	PPH	TPY		
METHYLENE CHLORIDE	0.0013	0.0055		
Regulated Pollutants other than	Pote	ential Emissions		
Criteria and HAP	PPH	TPY		
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).				
ENGINEERING ESTIMATE				

Appl	licabi	le R	equir	rements
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List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

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## Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.

THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

Are you in compliance with all applicable requirements for this emission unit? Ves \_\_\_No

Page	of	

ATTACHMENT E - Emission Unit Form				
Emission Unit Description				
Emission unit ID number:	Emission unit name:  LAB HOOD	List any control devices associated with this emission unit:		
Provide a description of the emission unit (type, method of operation, design parameters, etc.):  LAB 208 VENTED CABINET EP ID R022E-F119; LOCATION: TELOMERS GC LAB				
Manufacturer: BUFFALO FORGE	Model number:	Serial number:		
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s		
/ / 1985	/ / 1985	/ / ;		
Design Capacity (examples: furnace 1500ACFM	s - tons/hr, tanks - gallons):			
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operation	ng Schedule:	
6300 PPH	27594 TON/YR	8760 HR/YR		
Fuel Usage Data (fill out all applical	ole fields)	I .		
Does this emission unit combust fue	!?Yes _ <b>✓</b> No	If yes, is it?		
		Indirect Fired	Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr ra	ting of burners:	
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide	
Describe each fuel expected to be used during the term of the permit.				
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value	

Potential Emissions	
PPH	TPY
0.000001	0.000044
	Potential Emissions
PPH	TPY
0.0013	0.0055
	Potential Emissions
PPH	TPY
the potential emissions (in	nclude dates of any stack tests conducted,
d dates of emission factor	rs, etc.).
	0.000001  PPH  0.0013

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.
If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.
Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223
<u>✓</u> Permit Shield
For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)
MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.
THE VISIBLE EMISSION CHECK WILL BE MADE BY A PERSON TRAINED IN 40 CFR 60, APPENDIX A, METHOD 22.
THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.
MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH
ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

Are you in compliance with all applicable requirements for this emission unit? Yes \_\_\_\_No If no, complete the Schedule of Compliance Form as ATTACHMENT F.

Page \_\_\_\_\_ of \_\_\_\_

ATTACHMENT E - Emission Unit Form				
Emission Unit Description				
Emission unit ID number:	Emission unit name:	List any control de		
R029S-230	Double Cone Fluorinator	with this emission u R029C-229	init:	
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	.):	
Evacuation Vent EP ID: R029EEF130 Lo	ocation: BLDG 29			
Manufacturer:	Model number:	Serial number:		
Custom made by DuPont	NA	NA		
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)	
/ / 1985	/ / 1985	/ / ; / / ;		
Design Capacity (examples: furnace Batch Process-24pph	s - tons/hr, tanks - gallons):			
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operation	ng Schedule:	
8 hrs/batch	156 batches	1248 hrs/yr		
Fuel Usage Data (fill out all applical	ble fields)			
Does this emission unit combust fuel?YesY NoIf yes, is it?				
		Indirect Fired	Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr ra	ting of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.				
Describe each fuel expected to be used during the term of the permit.				
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value	

Emissions Data			
Criteria Pollutants	Potential Emissions		
	РРН	TPY	
Carbon Monoxide (CO)	NA	NA	
Nitrogen Oxides (NO <sub>X</sub> )	NA	NA	
Lead (Pb)	NA	NA	
Particulate Matter (PM <sub>2.5</sub> )	NA	NA	
Particulate Matter (PM <sub>10</sub> )	NA	NA	
Total Particulate Matter (TSP)	NA	NA	
Sulfur Dioxide (SO <sub>2</sub> )	NA	NA	
Volatile Organic Compounds (VOC)	NA	NA	
Hazardous Air Pollutants	Potentia	al Emissions	
	РРН	TPY	
Hydrogen Fluoride	4.4E-3	3.0E-3	
Regulated Pollutants other than	Potential Emissions		
Criteria and HAP	РРН	TPY	
Fluorides	5.7E-3	4.5E-3	
Fluorine	0.15	9.0E-3	
List the method(s) used to calculate versions of software used, source and		s of any stack tests conducted,	
Engineering Estimate			

Appl	licabi	le R	equir	rements
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Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

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### Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

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MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

Are you in compliance with all applicable requirements for this emission unit? Ves \_\_\_No

Page	of	

ATTACHMENT E - Emission Unit Form				
Emission Unit Description				
Emission unit ID number:	Emission unit name:	List any control de		
R031S902	PARTS CLEANER	with this emission t	init: NONE	
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	.):	
PARTS CLEANER EPID: R031E902				
Manufacturer:	Model number:	Serial number:		
SAFETY KLEEN	NA	NA		
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)	
/ / 2002	/ / 2002	/ / ; / / ;		
<b>Design Capacity (examples: furnace</b> 50 GALLON	s - tons/hr, tanks - gallons):			
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operation	ng Schedule:	
NA	NA	8760HRS/YR		
Fuel Usage Data (fill out all applicate	ble fields)			
Does this emission unit combust fuel?Yes No If yes, is it?				
		Indirect Fired	Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr ra	ting of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.				
Describe each fuel expected to be used during the term of the permit.				
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value	

Emissions Data			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>X</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	0.206	0.9	
Hazardous Air Pollutants	Potent	ial Emissions	
	РРН	TPY	
Regulated Pollutants other than	Potential Emissions		
Criteria and HAP	РРН	TPY	
List the method(s) used to calculate a versions of software used, source and		tes of any stack tests conducted,	
ENGINEERING ESTIMATES			

Appl	licabi	le R	equir	rements
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Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

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### Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

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MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

Are you in compliance with all applicable requirements for this emission unit? Ves \_\_\_No

Page	of	

ATTACHMENT E - Emission Unit Form				
Emission Unit Description				
Emission unit ID number:	Emission unit name:	t name:  List any control devices associated with this emission unit:		
R031S903	SAND/BEAD BLASTER	INTEGRAL CYCLONE		
Provide a description of the emission	n unit (type, method of operation, de	esign parameters, etc	.):	
SAND/BEAD BLASTER EPID: R031E903				
Manufacturer:	Model number:	Serial number:		
ZERO MFG CO	BPN 220-1	262914		
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)	
/ / 2002	/ / 2002	/ / ; / / ;		
Design Capacity (examples: furnace	s - tons/hr, tanks - gallons):			
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operation	ng Schedule:	
3780 PPH	16556 TONS/YR	8760HRS/YR		
Fuel Usage Data (fill out all applicable fields)				
Does this emission unit combust fuel?Yes No If yes, is it?				
	Indirect Fired	Direct Fired		
Maximum design heat input and/or maximum horsepower rating:  Type and Btu/hr rating of burners				
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide	
Describe each fuel expected to be us	ed during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value	

Emissions Data			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>X</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )	0.104	0.455	
Total Particulate Matter (TSP)	0.104	0.455	
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)			
Hazardous Air Pollutants	Potentia	l Emissions	
	PPH	TPY	
Regulated Pollutants other than	Potentia	1 Emissions	
Criteria and HAP	PPH	TPY	
List the method(s) used to calculate to versions of software used, source and		s of any stack tests conducted,	
ENGINEERING ESTIMATES			

Appl	licab	le	Requirements
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Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

<b>/</b>	

### Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

MONITORING SHALL BE BY PERFORMING A VISIBLE EMISSIONS CHECK ON THE STACK ONCE PER MONTH.

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MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

Are you in compliance with all applicable requirements for this emission unit? Ves \_\_\_No

Page	of	'

ATTACHMENT E - Emission Unit Form					
Emission Unit Description					
Emission unit ID number:	Emission unit name:	List any control de			
R022S-205A	Tank #1 vent	with this emission u	ınit:		
Provide a description of the emission	n unit (type, method of operation, d	esign parameters, etc	.):		
FP SW TFE Tank #1 Vent. EP ID:R022EC	PV Location: Cell #1.				
Manufacturer:	Model number:	Serial number:			
Custom made by DuPont	NA	NA			
Construction date: (MM/DD/YYYY)	Installation date: (MM/DD/YYYY)	Modification date(s	s): (MM/DD/YYYY)		
/ / 2004	/ / 2004	/ / ; / / ;			
Design Capacity (examples: furnace Batch process- 14 gallons	es - tons/hr, tanks - gallons):				
Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operation	ng Schedule:		
1 hr/batch	12 batches	12 batches/year			
Fuel Usage Data (fill out all applica	ble fields)				
Does this emission unit combust fuel?Yes No					
	Indirect Fired	Direct Fired			
Maximum design heat input and/or maximum horsepower rating:  Type and Btu/hr rating of			ting of burners:		
_	2. pe and 2 and a value of the area of the				
List the primary fuel type(s) and if a the maximum hourly and annual fu		). For each fuel type	listed, provide		
Describe each fuel expected to be us	ed during the term of the permit.				
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value		
7 F 7					
L	I.	1	l		

Emissions Data			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO <sub>X</sub> )			
Lead (Pb)			
Particulate Matter (PM <sub>2.5</sub> )			
Particulate Matter (PM <sub>10</sub> )			
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO <sub>2</sub> )			
Volatile Organic Compounds (VOC)	146.4	0.878	
Hazardous Air Pollutants		Potential Emissions	
	PPH	TPY	
Hydrochloric acid	0.0054	0.000033	
Regulated Pollutants other than	Potential Emissions		
Criteria and HAP	PPH	TPY	
		ide dates of any stack tests conducted,	
versions of software used, source an	d dates of emission factors, e	etc.).	
Engineering estimate			

Appl	licabi	le R	equir	rements
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Operation of the equipment is subject to 45 CSR 13A or 45 CSR 13B depending on whether for Laboratory or R&D use.

If the operation generates particulate matter or acid gases (excluding HF) it is subject to 45 CSR 7 limitations based on through put and as interpreted by the appropriate 45 CSR 13 interpretive rule.

Use by the unit of Methylene Chloride will make it subject to 45 CSR 27 and the emission limits found in either R13-2654D or in R13-3223

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### Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

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THE NUMBER OF LABORATORY TESTS OR THE POUNDS OF PRODUCTION WILL BE RECORDED EACH MONTH.

MAINTENANCE RECORDS WILL BE MONITORED AND RECORDED EACH MONTH

ALL RECORDS WILL BE KEPT FOR FIVE YEARS.

Are you in compliance with all applicable requirements for this emission unit? Ves \_\_\_No

Page	of	

# **Attachment F - Compliance Plans - Negative Declaration**

ATTA	CHMENT	F - Schedule	e of Com	ıpliance Form
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Complete this section if you indicated noncompliance with any of the applicable requirements identified in the permit application. For each emission unit which is not in compliance, identify the applicable requirement, the reason(s) for noncompliance, a description of how the source will achieve compliance, and a detailed schedule of compliance. If there is a consent order that applies to this requirement, attach a copy to this form.

reason(s) for noncompliance, a description of how the so compliance. If there is a consent order that applies to the	burce will achieve compliance, and a detailed schedule of is requirement, attach a copy to this form.			
1. Applicable Requirement None - no out of c	1. Applicable Requirement None - no out of compliance issues			
Unit(s):	Applicable Requirement:			
2. Reason for Noncompliance:				
3. How will Compliance be Achieved?				
4. Consent Order Number (if applicable):				
5. <b>Schedule of Compliance.</b> Provide a schedule of reactions with milestones, leading to compliance, including	emedial measures, including an enforceable sequence of g a date for final compliance.			
Remedial Measure or Action	Date to be Achieved			
6. Submittal of Progress Reports.				
Content of Progress Report:  Report starting date:  MM/DD/YYYY  Submittal frequency:				

Schedule of Compliance Form (compliance\_schedule.doc) Page 1 of 1 Revised -8/18/04 Schedule of Compliance Form

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## **Attachment G - Control Device Data Sheets**

ATTACHMENT G - Air Pollution Control Device Form			
Control device ID number:	List all emission units associated with this control device.		
R029-C229	R029-S230		
Manufacturer:	Model number:	Installation date: MM/DD/YYYY	
DuPont Internal Design	N/A	1985	
<b>Type of Air Pollution Control Device:</b>			
Baghouse/Fabric Filter	Venturi Scrubber	Multiclone	
Carbon Bed Absorber	Packed Tower Scrubber	Single Cyclone	
Carbon Drum(s)	Other Wet Scrubber	Cyclone Bank	
Catalytic Incinerator	Condenser	Settling Chamber	
Thermal Incinerator	Flare	Other (describe)	
Wet Plate Electrostatic Precipitator	]	Dry Plate Electrostatic Precipitator	
List the pollutants for which this device	ce is intended to control and the ca	pture and control efficiencies.	
Pollutant	Capture Efficiency	Control Efficiency	
Hydrogen Fluoride	90%	90%	
Fluorine	90%	90%	
Fluorides	90%	90%	
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).  Scrubbing liquor used in the unit is a nominal 10% solution of KOH. It is made up from adding 45% KOH from a drum to			
maintain the scrubbing efficiency. Liquor pressure to the scrubber spray distribution is a nominal 80 psig with actual pressure drop through the scrubber is 10 inches water column. Liquor flow rate is a nominal 35 gpm. Design gas flow rate through the scrubber is 2.4 ACFM at 482 degrees F and 1.45 psia. Average gas flow is 1.44 ACFM.			
Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No			
If Yes, Complete ATTACHMENT H			
If No, <b>Provide justification.</b> Flow below applicability trigger.			
Describe the parameters monitored and/or methods used to indicate performance of this control device.  Performance is monitored by measuring the concentration of KOH after every third (3rd) cylinder of fluorine consumed. KOH concentration is maintained greater than or equal to 8% KOH in solution.			

Page \_\_\_\_\_ of \_\_\_\_

# Attachment H - Compliance Assurance Monitoring Declaration

### **ATTACHMENT H - Compliance Assurance Monitoring (CAM) Plan Form**

For definitions and information about the CAM rule, please refer to 40 CFR Part 64. Additional information (including guidance documents) may also be found at  $\frac{\text{http://www.epa.gov/ttn/emc/cam.html}}{\text{http://www.epa.gov/ttn/emc/cam.html}}$ 

	CAM APPLICABILITY DETERMINATION		
sep CF app	ones the facility have a PSEU (Pollutant-Specific Emissions Unit considered parately with respect to <u>EACH</u> regulated air pollutant) that is subject to CAM (40 FR Part 64), which must be addressed in this CAM plan submittal? To determine plicability, a PSEU must meet <u>all</u> of the following criteria ( <i>If No, then the mainder of this form need not be completed</i> ):		
a.	The PSEU is located at a major source that is required to obtain a Title V permit;		
b.	The PSEU is subject to an emission limitation or standard for the applicable regulated air pollutant that is $\underline{\text{NOT}}$ exempt;		
	LIST OF EXEMPT EMISSION LIMITATIONS OR STANDARDS:		
	• NSPS (40 CFR Part 60) or NESHAP (40 CFR Parts 61 and 63) proposed after 11/15/1990.		
	Stratospheric Ozone Protection Requirements.		
	Acid Rain Program Requirements.		
	• Emission Limitations or Standards for which a WVDEP Division of Air Quality Title V permit specifies a continuous compliance determination method, as defined in 40 CFR §64.1.		
	• An emission cap that meets the requirements specified in 40 CFR §70.4(b)(12).		
c.	The PSEU uses an add-on control device (as defined in 40 CFR §64.1) to achieve compliance with an emission limitation or standard;		
d.	The PSEU has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than the Title V Major Source Threshold Levels; AND		
e.	The PSEU is NOT an exempt backup utility power emissions unit that is municipally-owned.		
BASIS OF CAM SUBMITTAL			
	ark the appropriate box below as to why this CAM plan is being submitted as part of an application for a Title V rmit:		
	RENEWAL APPLICATION. ALL PSEUs for which a CAM plan has NOT yet been approved need to be addressed in this CAM plan submittal.		
	<u>INITIAL APPLICATION</u> (submitted after 4/20/98). <u>ONLY</u> large PSEUs (i. e., PSEUs with potential post-control device emissions of an applicable regulated air pollutant that are equal to or greater than Major Source Threshold Levels) need to be addressed in this CAM plan submittal.		
	SIGNIFICANT MODIFICATION TO LARGE PSEUs. ONLY large PSEUs being modified after 4/20/98 need to be addressed in this cam plan submittal. For large PSEUs with an approved CAM plan, Only address the appropriate monitoring requirements affected by the significant modification.		

3) " BACKGROUND DATA AND INFORMATION	
and the first tell for II DCFU that and the idea of the CAM also which This principle is the individual tell and information for the DCFU to also the individual tell and information for the individual tell and information for the individual tell and individual tell	

Complete the following table for <u>all PSEUs</u> that need to be addressed in this CAM plan submittal. This section is to be used to provide background data and information for each PSEU In order to supplement the submittal requirements specified in 40 CFR §64.4. If additional space is needed, attach and label accordingly.

requirements specified in 4	0 CFR §64.4. If additional space is	s needed, attach and lab			
PSEU DESIGNATION	DESCRIPTION	POLLUTANT	CONTROL DEVICE	<sup>b</sup> EMISSION LIMITATION or STANDARD	° MONITORING REQUIREMENT
EXAMPLE Boiler No. 1	Wood-Fired Boiler	PM	Multiclone	45CSR§2-4.1.c.; 9.0 lb/hr	Monitor pressure drop across multiclone: Weekly inspection of multiclone

<sup>&</sup>lt;sup>a</sup>If a control device is common to more than one PSEU, one monitoring plan may be submitted for the control device with the affected PSEUs identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a). If a single PSEU is controlled by more than one control device similar in design and operation, one monitoring plan for the applicable control devices may be submitted with the applicable control devices identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a).

b Indicate the emission limitation or standard for any applicable requirement that constitutes an emission limitation, emission standard, or standard of performance (as defined in 40 CFR §64.1).

<sup>&</sup>lt;sup>c</sup> Indicate the monitoring requirements for the PSEU that are required by an applicable regulation or permit condition.

	CAM MONI	TORING AI	PPROACH	CRITERIA
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Complete this section for  $\underline{EACH}$  PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide monitoring data and information for  $\underline{EACH}$  indicator selected for  $\underline{EACH}$  PSEU in order to meet the monitoring design criteria specified in 40 CFR  $\S64.3$  and  $\S64.4$ . if more than two indicators are being selected for a PSEU or if additional space is needed, attach and label accordingly with the appropriate PSEU designation, pollutant, and indicator numbers.

4a) PSEU Designation:	4b) Pollutant:	4c) <sup>a</sup> Indicator No. 1:	4d) <sup>a</sup> Indicator No. 2:
5a) GENERAL CRITER  Describe the MONITO used to measure the i	RING APPROACH		
b Establish the appropriate INDICATOR  RANGE or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:			
5b) PERFORMANCE C Provide the SPECIFICA OBTAINING REPRESEN as detector location, specifications, and m accuracy:	ATIONS FOR ITATIVE DATA, such installation		
<sup>c</sup> For new or modified monitoring equipment, provide <u>VERIFICATION</u> <u>PROCEDURES</u> , including manufacturer's recommendations, <u>TO CONFIRM THE</u> <u>OPERATIONAL STATUS</u> of the monitoring:			
Provide QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):			
<sup>d</sup> Provide the <u>MONITOR</u>	ING FREQUENCY:		
Provide the DATA COLLECTION PROCEDURES that will be used:			
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:			

<sup>&</sup>lt;sup>a</sup> Describe all indicators to be monitored which satisfies 40 CFR §64.3(a). Indicators of emission control performance for the control device and associated capture system may include measured or predicted emissions (including visible emissions or opacity), process and control device operating parameters that affect control device (and capture system) efficiency or emission rates, or recorded findings of inspection and maintenance activities.

<sup>&</sup>lt;sup>b</sup> Indicator Ranges may be based on a single maximum or minimum value or at multiple levels that are relevant to distinctly different operating conditions, expressed as a function of process variables, expressed as maintaining the applicable indicator in a particular operational status or designated condition, or established as interdependent between more than one indicator. For CEMS, COMS, or PEMS, include the most recent certification test for the monitor.

<sup>&</sup>lt;sup>c</sup> The verification for operational status should include procedures for installation, calibration, and operation of the monitoring equipment, conducted in accordance with the manufacturer's recommendations, necessary to confirm the monitoring equipment is operational prior to the commencement of the required monitoring.

d Emission units with post-control PTE  $\geq$  100 percent of the amount classifying the source as a major source (i.e., Large PSEU) must collect four or more values per hour to be averaged. A reduced data collection frequency may be approved in limited circumstances. Other emission units must collect data at least once per 24 hour period.

RATIONALE	AND JUSTIFICATION
	this CAM plan submittal. This section may be copied as needed for each PSEU. ne selection of <u>EACH</u> indicator and monitoring approach and <u>EACH</u> indicator range 4.
6a) PSEU Designation:	6b) Regulated Air Pollutant:
7) INDICATORS AND THE MONITORING API	PROACH: Provide the rationale and justification for the selection of the
indicators and the monitoring approach used to measure the indi- the reasons for any differences between the verification of ope	cators. Also provide any data supporting the rationale and justification. Explain erational status or the quality assurance and control practices proposed, and the ded, attach and label accordingly with the appropriate PSEU designation and
shall indicate how <u>EACH</u> indicator range was selected by either a <u>ENGINEERING ASSESSMENTS</u> . Depending on which method is bei	cation for the selection of the indicator ranges. The rationale and justification <u>COMPLIANCE OR PERFORMANCE TEST</u> , a <u>TEST PLAN AND SCHEDULE</u> , or by ing used for each indicator range, include the specific information required below ittach and label accordingly with the appropriate PSEU designation and
compliance or performance test conducted under regulatory semissions under anticipated operating conditions. Such data recommendations). The rationale and justification shall INCL	ges determined from control device operating parameter data obtained during a specified conditions or under conditions representative of maximum potential may be supplemented by engineering assessments and manufacturer's <a href="LUDE"><u>LUDE</u></a> a summary of the compliance or performance test results that were used to that no changes have taken place that could result in a significant change in the since the compliance or performance test was conducted.
and performing any other appropriate activities prior to use o implementation plan and schedule that will provide for use or	termined from a proposed implementation plan and schedule for installing, testing, of the monitoring). The rationale and justification shall <u>INCLUDE</u> the proposed f the monitoring as expeditiously as practicable after approval of this CAM plan, llation and beginning operation of the monitoring exceed 180 days after approval.
assessments and other data, such as manufacturers' design cr	procedures for establishing indicator ranges are determined from engineering iteria and historical monitoring data, because factors specific to the type of rformance testing unnecessary). The rationale and justification shall <a href="INCLUDE">INCLUDE</a> required to establish the indicator range.
RATIONALE AND JUSTIFICATION:	